

DRAFT MEMORANDUM

Date: October 5, 2018

Case No.: 2018-007883ENV

To: Liz White; Wade Wietgreffe, San Francisco Planning Department

From: Amanda Leahy, AICP; Mike Alston; Kevin Yost, Kittelson & Associates, Inc.

Project: Balboa Reservoir Transportation Impact Study

Subject: Travel Demand Memorandum – Draft 1

INTRODUCTION

Kittelson & Associates, Inc. (Kittelson) has prepared this memorandum to present the travel demand and freight and passenger loading demand methodology and estimates for use in the transportation assessment for the proposed Balboa Reservoir (Case No. 2018-007883ENV) in the Balboa Park neighborhood in San Francisco, California.

This memorandum is organized into the following sections:

- Project Description
- Project Travel Demand
- Vehicle Trip Assignment
- Freight and Passenger Loading Demand
- Existing Activity at the Project Site
- Transit Assessment

PROJECT DESCRIPTION

The project site is the 17.4-acre parcel located across Frida Kahlo Way (formerly Phelan Avenue) from the City College of San Francisco (City College) campus and adjacent to a City College parking lot that fronts onto Frida Kahlo Way. The parcel (Lot 190 of Assessor's Block 3180) is within Traffic Analysis Zone (TAZ) 915. The property is located within the P (Public) Zoning District, and the 65-A, 55-X, and 40-X Height and Bulk Districts. The project site is currently used as a 1,007-space surface parking lot (known as the "Lower Lot") for City College, supplementing the 1,167 vehicle parking spaces in the Upper Lot.¹ The project site is shown in Figure 1.

¹ The parking supply data is based on counts conducted in December 2017, January 2018, and April 2018.



Travel demand estimates for the following two proposed project options are presented in this memorandum:

- **Developer's Proposed Option.** The Developer's Proposed Option would include 1,100 dwelling units in 1,283,000 gross square feet, approximately 50 percent of which would be designated affordable. The housing will be composed of studios and one-, two- and three-bedroom units in flats and townhomes in buildings ranging in height from east to west within the site.² The Developer's Proposed Option would include 750 new public, non-accessory parking spaces in a 198,900 gross square foot garage. In addition to the public parking, accessory parking may be provided at a ratio of up to 0.5 spaces per unit throughout the site (up to 550 total spaces). Residential accessory parking would be provided in an additional 141,000 gross square feet of parking podiums beneath buildings onsite. Blocks A through I would allow one below-grade level for vehicle parking spaces. Buildings on the site would range from 2 stories (25 feet) to 7 stories (75 feet), and Blocks A through I would include ground floor building lobbies and common space.
- **Additional Housing Option.** The Additional Housing Option would include 1,550 dwelling units and 650 residential parking spaces.³ There would be no public parking provided under this option. The Additional Housing Option would have a reduced average unit size and buildings on the site would generally be one story taller compared to the Developer's Proposed Option.⁴

Both project options would include 7,500 square feet of commercial (retail) use and 10,000 square feet of on-site childcare (daycare) and approximately four acres of publicly accessible open space. Three project variants are under consideration. These project variants do not include changes to the proposed land use programs and therefore will not be presented or evaluated in this Travel Demand Memorandum. The proposed land use and parking program for the Developer's Proposed Option and Additional Housing Option are summarized in Table 1.

PROJECT TRAVEL DEMAND

Trip Generation Estimates

The travel demand for the proposed project options was estimated for weekday daily, weekday a.m., and weekday p.m. peak hours. The person trip generation rates include trips made by residents, employees, and visitors to the proposed development. Trip generation rates presented in the SF Planning Trip Generation Workbook (SF Workbook) were applied to estimate person trips generated by the residential and retail uses for the weekday daily and weekday p.m. peak hour.

² Based on discussions with the development team, the following unit mix assumptions were analyzed: 40% one-bedroom, 30% two-bedroom, 30% three-bedroom units.

³ The number of units in the Additional Housing Option is based on information presented by the City and County of San Francisco at the scoping meeting on August 16, 2018.

⁴ The transportation analysis presented in this memorandum conservatively assumes the same unit size and mix as the Developer's Proposed Option.

Table 1: Proposed Land Use Program

Land Use	Units	Size	
		Developer's Proposed Option	Additional Housing Option
Residential ¹	Total Dwelling Units	1,100	1,550
	Total Square Feet	1,283,000	1,807,864 ²
	1-Bedroom Units (Bedrooms)	440 (440)	620 (620)
	2-Bedroom Units (Bedrooms)	330 (660)	465 (930)
	3-Bedroom Units (Bedrooms)	330 (990)	465 (1,395)
	Total Number of Bedrooms	2,090	2,945
General Retail	Gross Square Feet	10,000	10,000
Childcare	Gross Square Feet	7,500	7,500
Residential Vehicle Parking	Spaces	Up to 550	650
Public Vehicle Parking	Spaces	750	0

Source: Reservoir Community Partners, LLC

Notes:

¹ The residential unit mix is assumed to be 40% 1-bedroom, 30% 2-bedroom and 30-percent 3-bedroom.

² The transportation analysis presented in this memorandum conservatively assumes the same unit size and mix as the Developer's Proposed Option.

The SF Workbook does not include weekday a.m. peak hour rates, or a rate for the proposed daycare land use. Therefore, the Institute of Transportation Engineers' Trip Generation (ITE, 10th Edition) rates were applied to estimate the daily, weekday a.m. and weekday p.m. peak hour person trips generated by the daycare use. Trip generation rates for the weekday a.m. peak hour were developed using a ratio comparison of the ITE weekday a.m. peak hour and weekday p.m. peak hour rates for each proposed land use and applying that ratio to the weekday p.m. peak hour SF Guidelines rates to derive SF Guidelines-equivalent shares of daily trips for the weekday a.m. peak hour. Table 2 presents the trip generation rates used for the proposed land uses.

Table 3 presents the daily, weekday a.m. peak hour, and weekday p.m. peak hour person trip estimates for the Developer's Proposed Option and Additional Housing Option. As shown in Table 3, the Additional Housing Option would generate 31 to 34 percent more person trips on a daily, weekday a.m., and weekday p.m. peak hour basis. The Developer's Proposed Option would generate 11,239 daily person trips for all land uses, 826 person trips in the weekday a.m. peak hour, and 1,058 person trips in the weekday p.m. peak hour. The Additional Housing Option would generate 15,079 total daily person trips, 1,399 in the weekday p.m. peak hour, and 1,004 in the weekday a.m. peak hour. The person trip generation estimates for retail and daycare land uses are the same for both options. Detailed travel demand calculations are included as Appendix A.

Table 2: Trip Generation Rates

Land Use	Time Period	Trip Generation Rate	Unit
Residential	Daily	4.5	Per Bedroom
	Weekday a.m. Peak Hour	0.3	
	Weekday p.m. Peak Hour	0.4	
Retail - General	Daily	150	Per 1,000 square feet
	Weekday a.m. Peak Hour	10.3	
	Weekday p.m. Peak Hour	13.5	
Daycare ¹	Daily	47.6	Per 1,000 square feet
	Weekday a.m. Peak Hour	11.7	
	Weekday p.m. Peak Hour	11.8	

Source: SF Workbook, 2018. ITE, 10th Edition, 2012.

Notes: The daily and weekday p.m. peak hour trip generation rates were obtained from the SF Planning Trip Generation Workbook. Trip generation rates for the weekday a.m. peak hour were developed using a ratio comparison of the ITE weekday a.m. peak hour and weekday p.m. peak hour rates for each proposed land use and applying that ratio to the weekday p.m. peak hour SF Workbook rates to derive SF Workbook-equivalent shares of daily trips for the weekday a.m. peak hour

¹ The ITE rate for daycare was applied to estimate person trips generated by the daycare use for daily, weekday a.m. and weekday p.m. peak hour.

Table 3: Person Trip Estimates by Land Use

Land Use	Daily	Weekday a.m. Peak Hour			Weekday p.m. Peak Hour		
		In	Out	Total	In	Out	Total
Developer's Proposed Option							
Residential	9,386	150	501	635	643	192	834
Retail	1,496	59	46	103	60	75	135
Daycare	357	39	30	88	39	50	89
Total Person Trips	11,239	247	578	826	741	317	1,058
Additional Housing Option							
Residential	13,226	210	702	895	906	270	1,176
Retail	1,496	59	46	103	60	75	135
Daycare	357	39	30	88	39	50	89
Total Person Trips	15,079	307	779	1,085	1,004	395	1,399

Source: Kittelson & Associates, Inc. 2018. SF Workbook, 2018. ITE, 10th Edition, 2012.

Notes: Totals may not sum due to rounding.

¹ Inbound/outbound distribution of weekday p.m. peak hour trips in and out of the project are obtained from the SF Workbook. The distribution of weekday a.m. peak hour trips in and out of the project are the inverse of the weekday p.m. peak hour trips for each land use.

² Weekday a.m. peak hour values are calculated using the ITE Trip Generation Handbook 10th edition ratios for a.m. to p.m. for each use.

³ Daycare trips in and out of project are based on the in and out proportions of retail from the SF Workbook.

Mode Share

Person trips generated by the proposed project options were distributed to the twelve districts of the San Francisco Bay Area, and then assigned to travel modes based on mode shares presented in the SF Workbook in order to determine the number of auto, taxi/TNC, transit, walk, and bike trips. The mode split for the residential and retail land uses were obtained directly from the SF Workbook, which takes into account the transportation analysis zone, district, and place type of that land use. The SF Workbook does not include the daycare land use so the daycare mode split was estimated as the average of the retail and residential uses.

The person trips shown as “auto” person trips reflect the total number of persons traveling by automobile. Given that some automobiles transport multiple people, each of whom is making one person trip, vehicle trips are calculated as the number of auto-person trips divided by the average vehicle occupancy (AVO). The AVO is the total number of person trips and total number of vehicle trips calculated for each land use.⁵

The resulting mode split for each land use is the same for the Developer’s Proposed Option and Additional Housing Option and is presented in Table 4. Table 5 presents the person trips by mode and the total vehicle trips for each land use and both proposed project options. Table 6 presents the vehicle trips generated by land use for both proposed project options.

Table 4: Mode Split by Land Use

Mode	Residential	Retail	Daycare
Auto	40%	26%	38%
Taxi / TNC	4%	1%	3%
Transit	19%	12%	18%
Walk	34%	58%	37%
Bike	4%	3%	4%
Total	100%	100%	100%

Source: Kittelson & Associates, Inc. 2018. SF Guidelines, 2018. ITE, 10th Edition, 2012.

As shown in Table 5 and Table 6, the Additional Housing Option would generate about 35 percent more vehicle trips than the Developer’s Proposed Option as a result of the 74 and 97 additional vehicle trips generated by the residential land use during the weekday a.m. and p.m. peak hours, respectively. The Developer’s Proposed Option would generate 217 weekday a.m. peak hour vehicle trips (16 retail, 20 daycare, and 181 residential) and 279 weekday p.m. peak hour vehicle trips (21 retail, 20 daycare, and 238 residential). The Additional Housing Option would generate 291 weekday a.m. peak hour vehicle trips (21 retail, 20 daycare, and 255 residential) and 376 weekday p.m. peak hour vehicle trips (21 retail, 20 daycare, and 335 residential).

Vehicle Trip Distribution

Vehicle trips were distributed to the 12 districts in the San Francisco Bay Area, both within and outside of the City, based on the project location and proposed land use types included in the SF Workbook. The weekday a.m. peak period distribution to each district was assumed to be the same as the weekday p.m. peak hour distribution. Project vehicle trip distribution is presented in Figure 2 and Table 7 and is the same for the Developer’s Proposed Option and Additional Housing Option.

⁵ The SF Planning Trip Generation Workbook applies an AVO of 1.67 to all taxi/TNC trips and Community Household Travel Survey (CHTS) data for other modes.

Table 5: Person Trip Generation Estimates by Mode and Land Use

Mode	Weekday a.m. Peak Hour				Weekday p.m. Peak Hour			
	Retail	Daycare	Residential	Total	Retail	Daycare	Residential	Total
Developer's Proposed Option								
Auto	27	33	254	314	35	33	334	402
Taxi / TNC	1	3	22	27	2	3	29	34
Transit	12	16	120	147	16	16	157	189
Walk	59	32	215	307	78	33	283	393
Bike	3	3	24	30	4	3	32	39
Total Person Trips	102	87	635	825	135	88	834	1,057
Avg. Vehicle Occupancy	1.80	1.80	1.53	1.57	1.80	1.80	1.53	1.57
Total Vehicle Trips	16	20	181	217	21	20	238	279
Additional Housing Option								
Auto	27	33	358	418	35	33	470	539
Taxi / TNC	1	3	31	36	2	3	41	46
Transit	12	16	169	196	16	16	221	253
Walk	59	32	303	394	78	33	398	508
Bike	3	3	34	40	4	3	45	52
Total Person-Trips	102	87	895	1,084	135	88	1,176	1,398
Avg. Vehicle Occupancy	1.80	1.80	1.53	1.56	1.80	1.80	1.53	1.56
Total Vehicle Trips	16	20	255	291	21	20	335	376

Source: Kittelson & Associates, Inc. 2018. SF Workbook, 2018. ITE, 10th Edition, 2012.

Notes: TNC = Transportation Network Company; Avg = Average

Table 6: Vehicle Trip Estimates by Land Use

Land Use	Daily	Weekday a.m. Peak Hour			Weekday p.m. Peak Hour		
		In	Out	Total	In	Out	Total
Developer's Proposed Option							
Residential	2,663	42	139	181	183	55	238
Retail	554	9	7	16	9	12	21
Daycare	98	11	9	20	9	11	20
Total Vehicle Trips	3,315	62	155	217	201	78	279
Additional Housing Option							
Residential	3,872	59	196	255	258	77	335
Retail	554	9	7	16	9	12	21
Daycare	98	11	9	20	9	11	20
Total Vehicle Trips	4,524	79	212	291	276	100	376

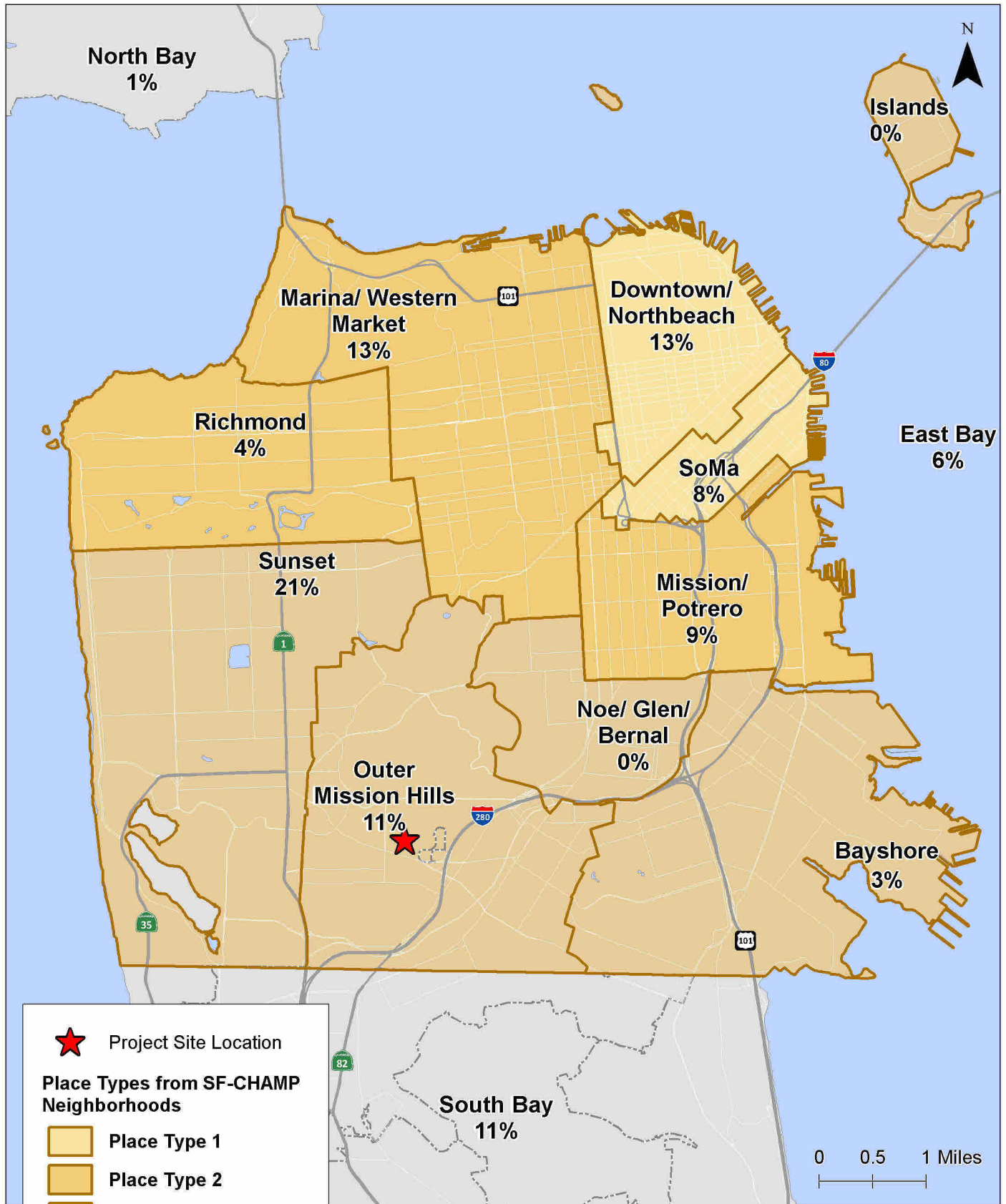
Source: Kittelson & Associates, Inc. 2018. SF Workbook, 2018. ITE, 10th Edition, 2012.

Notes: Totals may not sum due to rounding.

¹ Inbound/outbound distribution of weekday p.m. peak hour trips in and out of the project are obtained from the SF Workbook. The distribution of weekday a.m. peak hour trips in and out of the project are the inverse of the weekday p.m. peak hour trips for each land use.

² Weekday a.m. peak hour values are calculated using the ITE Trip Generation Handbook 10th edition ratios for a.m. to p.m. for each use.

³ Daycare trips in and out of project are based on the in and out proportions of retail from the SF Workbook.



★ Project Site Location

Place Types from SF-CHAMP Neighborhoods

- Place Type 1
- Place Type 2
- Place Type 3

% = District Distribution

Project Vehicle Trip Distribution

Figure 2

Table 7: Project Vehicle Trip Distribution

District Origin/Destination	Distribution
Downtown/North Beach/Chinatown	13%
South of Market (SoMa)	8%
Marina/Western Market	13%
Mission/Potrero	9%
Noe/Glen/Bernal	0%
Outer Mission/Hills	11%
Bayshore	3%
Richmond	4%
Sunset	21%
Islands	0%
South Bay	11%
East Bay	6%
North Bay	1%
Total	100%

Source: Kittelson & Associates, Inc. 2018. SF Workbook, 2018. ITE, 10th Edition, 2012.

Notes:

¹ The SF Workbook does not include distribution to the Noe/Glen/Bernal district, which is shown in the shapefile provided by SF Planning. The SF Workbook consolidates the North Beach/Chinatown and Downtown districts, the Marina and Western Market districts, and Outer Mission and Hills Districts.

As shown in Figure 2, the project site is located within the Outer Mission/Hills district. As shown in Figure 2 and Table 7, the Sunset district has the highest proportion of the distributed trips (21 percent), followed by Downtown/North Beach/Chinatown and Marina/Western Market (13 percent each), and the Outer Mission/Hills and South Bay (11 percent each).

FREIGHT AND PASSENGER LOADING DEMAND

Freight Loading Demand

Freight loading demand consists of the number of delivery and service vehicle-trips generated by a project. The number of daily delivery/service vehicle trips is estimated based on the size of each land use and a truck trip generation rate specific to each land use. The number of freight loading spaces necessary to accommodate this demand is based on the anticipated hours of operation, turnover of loading spaces, and an hourly distribution of trips. The information and rates used in the loading demand analysis were obtained from the SF Guidelines (2002) for the proposed land uses. While the size of dwelling units in the Additional Housing Option would be smaller than those in the Developer's Proposed Option, for purposes of a more conservative analysis, the average square foot per dwelling unit for the Additional Housing Option was assumed to be the same as the Developer's Proposed Option (1,166 square feet per dwelling unit). Table 8 presents the estimated demand of freight loading spaces for the Developer's Proposed Option and Additional Housing Option.

Table 8: Freight Loading Demand

Land Use	Size (square feet)	Turnover Rate (R Value)	Delivery/Service Vehicle Trips		
			Daily	Average Hour	Peak Hour
Developer's Proposed Option					
Residential	1,283,000	0.03	38.5	1.8	2.2
Retail	10,000	0.22	2.2	0.1	0.1
Daycare	7,500	0.10	0.8	0.0	0.0
Total	1,300,500	-	41.4	1.9	2.4
Additional Housing Option					
Residential	1,807,864	0.03	54.2	2.5	3.1
Retail	10,000	0.22	2.2	0.1	0.1
Daycare	7,500	0.10	0.8	0.0	0.0
Total	1,825,364	-	57.2	2.6	3.3

Source: Kittelson & Associates, Inc, 2018. SF Workbook, 2018.

Notes:

- The peak period of loading demand typically occurs between 10:00 AM and 1:00 PM and does not coincide with the weekday a.m. and p.m. peak periods.
- Loading Demand Equation: Daily Trips = (SF / 1,000) * R; Average Hour = (SF / 1,000) * R / 9 / 2.4; Peak Hour = (GSF / 1,000) * (R * 1.25) / 9 / 2.4

As summarized in Table 8, the Additional Housing Option would generate more delivery/service vehicle trips on a daily, weekday a.m. and weekday p.m. peak hour basis as a result of the larger residential use. The Developer's Proposed Option would generate about 42 daily delivery and service vehicle trips and about two trips during the average hour and three trips during the peak hour of freight loading activity. The Additional Housing Option would generate about 58 daily delivery and service vehicle trips and about three trips during the average hour and four trips during the peak hour of freight loading activity.

Passenger Loading Demand

Passenger loading demand is estimated for the proposed project options to evaluate whether adequate space to accommodate curbside passenger loading is provided. The extent of curbside space needed to accommodate this demand is based on the trip generation rates and methodology outlined in the SF Guidelines (2002), Appendix H.

- The weekday a.m. and p.m. peak hour vehicle trips for passenger loading are produced from the total vehicle trips (in and out) of the "Taxi/TNC" mode in Table 5
- Multiply the number of arrivals by a peaking factor of two and divide by four to estimate the number of vehicle arrivals during the peak 15-minute period
- Multiply the number of vehicle arrivals during the peak 15-minute period by the average duration of a stop (1.5 minutes) and divide by 15 minutes to estimate the peak demand for passenger loading in passenger car equivalents during any one minute of the peak 15-minute period

The passenger loading demand and curbside loading space needs for each proposed project option are summarized in Table 9.

Table 9: Passenger Loading Demand

Step Description ¹	Developer's Proposed Option		Additional Housing Option	
	Weekday a.m. Peak Hour	Weekday p.m. Peak Hour	Weekday a.m. Peak Hour	Weekday p.m. Peak Hour
a Peak Hour Vehicle Trips	26	34	36	46
b Peak Hour Factor	53	68	71	92
c Peak 15-minute Arrivals	13	17	18	23
d Average Dwell Time	20	25	27	34
e Linear Space, PCE	1.3	1.7	1.8	2.3
f Linear Space, feet	29	37	39	51

Source: SF Guidelines, 2002. Kittelson & Associates, Inc., 2018.

Notes: “-” indicates not applicable. PCE = passenger car equivalents. The passenger loading demand is calculated based on the number of person trips generated by the “taxi/TNCs” mode.

¹ Average dwell time is 1.5 minutes, per SF Guidelines (2002) curbside loading demand equation.

¹ Equations/calculation:

- a) See Table 5 “Taxi/TNC” mode
- b) Multiply (a) by 2
- c) Divide (b) by 4
- d) Multiply (c) by 1.5
- e) Divide (d) by 15
- f) Multiply (e) by 22. Assumes an average vehicle length of 22 feet.

As summarized in Table 9, the Additional Housing Option is estimated to generate a higher demand for passenger loading than the Developer's Proposed Option. The Additional Housing Option would generate a demand of up to three passenger loading spaces during the weekday p.m. peak hour and two passenger loading spaces during the weekday a.m. peak hour. The Developer's Proposed Option would generate a demand for up to two passenger loading spaces during the weekday a.m. and p.m. peak hours.

EXISTING VEHICLE ACTIVITY AT THE PROJECT SITE#

As previously noted, the project site is currently occupied by a 1,007-space surface parking lot (“Lower Lot”) accessed by two driveways on Frida Kahlo Way. The Lower Lot serves as overflow parking for the City College's 1,167-space Upper Lot. Both parking lots are accessible from two driveways located on Frida Kahlo Way – City College Lot North Entrance and City College Lot South Entrance. The City College Lot North Entrance also serves vehicles exiting the adjacent Archbishop Riordan High School.

Driveway counts and parking occupancy counts were collected to understand the existing vehicle activity at the site. Driveway counts were collected during the weekday a.m. and p.m. peak periods on Thursday, December 7, 2017. Parking inventory and occupancy data was collected on Thursday, December 7, 2017, Wednesday, January 31, 2018, and Wednesday, April 18, 2018 when City College was in session. Parking data was collected on an hourly basis between 7:00 a.m. and 9:00 p.m. Driveway count data is summarized in Table 10 and parking supply and average occupancy data are summarized in Table 11.

Detailed driveway count data is included as Appendix B. Detailed parking inventory and occupancy data is included as Appendix C.

Table 10: Driveway Counts

City College Lot Entrance	Weekday a.m. Peak Hour ¹			Weekday p.m. Peak Hour ²		
	Inbound	Outbound	Total	Inbound	Outbound	Total
North	141	144	285	83	130	213
South	194	20	214	121	153	274
Total	335	164	499	204	283	487

Sources: Kittelson & Associates, Inc. 2018; Quality Counts, 2017.

Notes: Data collected on Thursday, December 7, 2017.

¹ The weekday a.m. peak hour of vehicle activity occurred between 7:35 a.m. and 8:35 a.m.

² The weekday p.m. peak hour of vehicle activity occurred between 5:00 p.m. and 6:00 p.m.

Table 11: City College Upper and Lower Lot Parking Supply and Occupancy Count

Time	Lower Lot (1,007 Spaces)			Upper Lot (1,167 Spaces)			Combined (2,174 Spaces)		
	Parked	Available	Utilization	Parked	Available	Utilization	Parked	Available	Utilization
7	1	1,006	0%	58	1,109	5%	59	2,115	3%
8	4	1,003	0%	248	919	21%	252	1,922	12%
9	53	954	5%	759	408	65%	812	1,362	37%
10	222	785	22%	1,006	161	86%	1,228	946	57%
11	335	672	33%	1,071	96	92%	1,406	768	65%
12	306	701	30%	1,046	121	90%	1,352	822	62%
13	217	790	22%	987	180	85%	1,204	970	55%
14	124	883	12%	827	340	71%	951	1,223	44%
15	96	911	10%	684	483	59%	780	1,394	36%
16	52	955	5%	522	645	45%	574	1,600	26%
17	34	973	3%	431	736	37%	465	1,709	21%
18	14	993	1%	513	654	44%	527	1,647	24%
19	6	1,001	1%	537	630	46%	543	1,631	25%
20	2	1,005	0%	445	722	38%	447	1,727	21%
21	1	1,006	0%	184	983	16%	185	1,989	9%

Sources: Kittelson & Associates, Inc. 2018; Quality Counts, 2017 & 2018.

Notes: Data presented represents the average across three days of data collection: Thursday, December 7, 2017, Wednesday, January 31, 2018, and Wednesday, April 18, 2018.

As shown in Table 10, based on vehicle turning movement counts collected at the site driveways (City College Lot North Entrance and City College Lot South Entrance), there were a total of 499 vehicles (335 inbound, 164 outbound) and 487 vehicles (204 inbound, 283 outbound) observed during the weekday a.m. and p.m. peak hours, respectively.

As shown in Table 11, the peak hourly utilization of both the Lower Lot and Upper Lot occurs between 11:00 a.m. and 12:00 p.m. in both the Lower Lot and Upper Lot. During this time, there were 335 cars parked (672 spaces available) in the Lower Lot and 1,071 cars parked (96 spaces available) in the Upper

Lot. The facility (Upper Lot and Lower Lot) was 65 percent occupied during this time with a total of 1,406 vehicles parked and 768 spaces available.

The ability of the Upper Lot to accommodate the total demand for parking during the weekday a.m. and p.m. peak hours was evaluated to determine whether vehicles would be displaced and need to find parking in other off-street or on-street facilities. Table 12 summarizes the combined Lower Lot and Upper Lot parking occupancy and utilization based on the capacity of the Upper Lot.

Table 12: Existing City College Upper/Lower Lot Parking Occupancy and Upper Lot Supply

Time Period	Time	Combined Occupancy ¹		
		Parked Vehicles	Available Spaces	Utilization
Weekday a.m. Peak Period	7	59	1,108	5%
	8	252	915	22%
Weekday p.m. Peak Period	17	465	702	40%
	18	527	640	45%

Sources: Kittelson & Associates, Inc. 2018; Quality Counts, 2017 & 2018.

Notes: Data presented represents the average across three days of data collection: Thursday, December 7, 2017, Wednesday, January 31, 2018, and Wednesday, April 18, 2018.

¹ Parked vehicles calculated as the sum of the number of vehicles parked in the Lower Lot and Upper Lot. Available spaces and utilization rate calculated based on the Upper Lot supply of 1,167 parking spaces.

As shown in Table 12, the Upper Lot would be able to accommodate the total combined number of vehicles parked in both the Lower Lot (project site) and the Upper Lot during the weekday a.m. and p.m. peak periods. With the combined number of parked vehicles, there would be almost between 915 and 1,108 parking spaces available during the weekday a.m. peak period and between 640 and 702 parking spaces available during the weekday p.m. peak period.

TRANSIT IMPACT ASSESSMENT

The scope of the transit impact assessment will be determined in coordination with SF Planning and SFMTA staff based on the review of the travel demand estimates summarized in the sections above. As currently scoped, the transit analyses would include the following elements:

City College Loop Analysis. Using intersection count data and field observations collected at City College Loop, and the travel demand estimates summarized in this memorandum, Kittelson would develop a narrative and figure illustrating the weekday a.m. and p.m. peak hour project-related vehicle traffic and bus movements at City College Loop. Kittelson would evaluate the impact of the proposed project on the ability of buses to enter/exit Phelan Loop or cause a substantial increase in delay for entering/exiting buses.

Ridership and Capacity Analysis. Kittelson would estimate the increase in weekday a.m. and p.m. peak hour transit ridership for individual Muni lines as a result of the Developer's Proposed Option and Additional Housing Option. Using the trip distribution from the SF Workbook, Kittelson would assign project-generated transit riders to nearby Muni lines (K, 8, 8BX, 29, 43, 49, 54). Transit riders with a

regional destination would utilize local Muni routes to access regional transit stops that are located outside of walking distance (e.g., Caltrain). These regional transit riders would also be assigned to local Muni lines for purposes of the analysis. Kittelson would obtain ridership (boarding and alighting and passenger load) data from SFMTA for nearby stops. Based on these values, Muni ridership and capacity would be assessed and documented.

Transit Delay Analysis. If necessary, the following corridors would be analyzed:

- Ocean Avenue from Plymouth Avenue to San Jose Avenue (Lines K, 29, 49)
- Frida Kahlo Way from Judson Avenue to Ocean Avenue (Line 43)
- Geneva Avenue from City College Bus Loop to San Jose Avenue (Lines 8, 8BX, 43, 54)

The transit delay analysis would consider the change in delay to transit vehicles due to the addition of vehicles along the corridor. Using the travel demand estimates summarized in this memorandum, Kittelson would calculate the intersection Level of Service (LOS) using the guidelines set forth in the Planning Department's *Guidelines for SYNCHRO Intersection LOS Analysis* memorandum (dated October 4, 2012). Intersection LOS would be calculated for the weekday a.m. and p.m. peak hour for a subset of the study intersections and used to evaluate the effects of project-related vehicle trips along Ocean Avenue, Frida Kahlo Way, and/or Geneva Avenue.

Additionally, as several Muni bus/metro lines currently operate along Ocean Avenue and Frida Kahlo Way, Kittelson would qualitatively assess transit operations and potential conflicts with vehicles entering and exiting the site. Access to nearby transit stops and potential for overcrowding on nearby routes would be assessed and described based on field observations and available transit data. The effects of proposed streetscape and public right-of-way modifications on transit service and operations would be described and evaluated and any potential hazards identified.

Appendix A – Travel Demand Calculations

From Static Worksheets PM Residential and Retail 10-2

Assumption

Daycare In/Out based on Retail

Assumption

AM Trip Rate is based on the ratio of total AM to total PM for each land use

Assumption

AM Peak Hour In/Out Ratios is based on the inverse of the PM Peak Hour In/Out Ratios

Land Use	Daily	Weekday AM Peak Hour			Weekday PM Peak Hour		
		In	Out	Total	In	Out	Total
Developer's Proposed Option							
Residential	9,386	150	489	635	643	192	834
Retail	1,494	59	45	103	60	75	135
DayCare	357	39	30	88	39	50	89
Total Person-Trips	11,237	247	565	826	741	317	1,058
Additional Housing Option							
Residential	13,226	206	702	895	906	270	1,176
Retail	1,494	59	45	103	60	75	135
DayCare	357	39	30	88	39	50	89
Total Person-Trips	15,077	303	778	1,085	1,004	395	1,399

Mode	Residential			Retail		
	Out	In	Total	Out	In	Total
Auto Person Trips	6.3	86.4	92.7	1.7	2.7	4.4
	113.8	263.5	377.3	18.9	12.1	31.0
Taxi / TNC Person Trips	0.6	7.6	8.1	0.1	0.1	0.2
	10.0	23.1	33.1	1.0	0.6	1.7
Transit Person Trips	13.8	144.7	158.5	1.9	3.1	5.0
	23.9	39.0	62.9	6.1	4.8	10.9
Total	168.4	564.4	732.7	29.7	23.4	53.2
Split	23%	77%	100%	56%	44%	100%

ITE Trip Generation Handbook Reference	Land Use Code	Land Use	Weekday PM Peak Hour	Weekday AM Peak hour	AM to PM Ratio
General Urban Suburban pg. 228-229	565	Daycare	11.82	11.73	0.992
Multi-Use Urban pg. 72	221	Mid Rise Residential	2.08	1.9	0.913
Multi Use Urban pg. 285 to 286	231	Mid Rise Residential with Ground Floor Retail	0.46	0.35	0.761
Option		Total Am to PM Ratio		Proportion of Person Trips in Daycare Land Use	
Developer's Proposed Option		78.03%		6.34%	
Additional Housing Option		77.55%			

Assumption: ITE Trip rate is same as person-trips

PM Daycare Trips		
Method	ITE Trip Gen	Students / sqft
Sqft (1000)	7.50	7500.00
ITE Trip PM Trip Generation Rate	11.82	
Students per sqft		88.00
Student Estimate		85.23
Driving Mode Share		0.70
Student-based Trips		59.66
Staff per Student		0.20
Staff Total		17.05
Retail Auto Share		0.40
Staff Based Trips		6.82
PM Trips	88.65	66.48

Daily Daycare Trips	
Method	ITE Trip Gen
Sqft (1000)	7.50
ITE Trip PM Trip Generation Rate	47.62
Daily	357.15

Based on Static Export of Sf Planning Workbook on 10-2

Daycare mode share based on Summary of all modes

Note: AM Average Passenger Rate is same as PM

AM and PM Based on AM/PM Ratios from ITE Trip Gen

Daycare Trip Generation From ITE Trip Gen

Total AVO is based on weighted average of AVO for the weight of each land use

Developer's Proposed Option										
Mode	Daily			PM			AM			Total
	Retail	Daycare	Residential	Total	Retail	Daycare	Residential	Total		
Auto	815	136	3,753	4,703	35	33	334	402	27	314
Taxi / TNC	15	11	329	356	2	3	29	34	1	27
Transit	236	64	1,768	2,067	16	16	157	189	12	147
Walk	413	133	3,179	3,724	78	33	283	393	59	307
Bike	17	13	357	387	4	3	32	39	3	30
Total Person-Trips	1,494	357	9,386	11,237	135	88	834	1,057	102	825
Total Vehicle-Person Trips	830	147	4,082	5,059	37	36	363	436	28	340
Average Vehicle Occupancy	1.50	1.50	1.53	1.53	1.80	1.80	1.53	1.57	1.80	1.57
Vehicle Trips	554	98	2,663	3,315	21	20	238	279	16	217
Additional Housing Option										
Mode	Daily			PM			AM			Total
	Retail	Daycare	Residential	Total	Retail	Daycare	Residential	Total		
Auto	815	136	5,288	6,238	35	33	470	539	27	418
Taxi / TNC	15	11	464	490	2	3	41	46	1	36
Transit	236	64	2,491	2,791	16	16	221	253	12	196
Walk	413	133	4,479	5,025	78	33	398	508	59	394
Bike	17	13	504	533	4	3	45	52	3	40

Balboa Reservoir
Summary of Trips by Mode

Total Person-Trips	1,494	357	13,226	15,077	135	88	1,176	1,398	102	87	895	1,084
Total Vehicle-Person Trips	830	147	5,752	6,729	37	36	511	585	28	36	389	453
Average Vehicle Occupancy	1.50	1.50	1.49	1.49	1.80	1.80	1.53	1.56	1.80	1.80	1.53	1.56
Vehicle Trips	554	98	3,872	4,524	21	20	335	376	16	20	255	291

Option	Total Am to PM Ratio	
Developer's Proposed Option	78.03%	
Additional Housing Option	77.55%	

Mode Split for Developer's Proposed Option in PM Peak Period				
Mode	Residential	Retail	Daycare	
Auto	40%	54%	38%	
Taxi / TNC	4%	1%	3%	
Transit	19%	12%	18%	
Walk	34%	58%	37%	
Bike	4%	3%	4%	
Total	100%	128%	100%	

Overall Mode Split for Developer's Proposed Option PM Peak Period			
Mode	Share	Percent	
Auto Person	369	38%	
Taxi TNC Person Trips	31	3%	
Public Transit	173	18%	
Walk	360	37%	
Bike	36	4%	
Total	969	100%	

Origin/Destination	Traveler's Proposed Option			Additional Housing Option		
	Weekday AM Peak	Weekday PM Peak Hour	Weekday PM Peak Hour	Weekday AM Peak	Weekday PM Peak Hour	Weekday PM Peak Hour
	Hour	Hour	Hour	Hour	Hour	Hour
Downtown/Venice Beach	13%	13%	13%	13%	13%	13%
SoMa	8%	8%	8%	8%	8%	8%
Marina West in Market	14%	14%	13%	13%	13%	13%
Mission/Poway	8%	8%	8%	9%	9%	9%
Mississauga/Hills Bayshore	10%	10%	11%	11%	11%	11%
Richmond	3%	3%	3%	3%	3%	3%
Sunset	21%	21%	21%	21%	21%	21%
Islands	0%	0%	0%	0%	0%	0%
South Bay	11%	11%	11%	11%	11%	11%
East Bay	6%	6%	6%	6%	6%	6%
North Bay	2%	2%	1%	1%	1%	1%
Total	100%	100%	100%	100%	100%	100%

Option	Total Am to PM
Developer's Roundoff	78.03%
Movie's Option	77.55%

[illegible][illegible]

1.526

AVO

Note: Daycare trip distribution based on summary of PM Peak Period trip distribution

Distribution of Day Care Trips for Developer's Proposed Option in PM Peak Period																											
Mode	Outbound													Inbound													
	Downtown / Northbeach	SoMa	Marina/ Western Market	Mission/ Potrero	Outer Mission/Hills	Bayshore	Richmond	Sunset	Islands	South Bay	East Bay	North Bay	Total	Downtown / Northbeach	SoMa	Marina/ Western Market	Mission/ Potrero	Outer Mission/Hills	Bayshore	Richmond	Sunset	Islands	South Bay	East Bay	North Bay	Total	
Auto Person Trips	0.15	0.02	0.05	0.04	0.00	0.00	0.02	0.01	0.00	0.14	0.02	0.01	0.46	0.49	0.22	0.16	0.15	0.28	0.42	0.03	0.48	0.02	1.15	0.59	0.11	4.10	
Daily Non-Work Trips	0.38	0.07	1.35	0.68	0.72	0.18	0.51	1.11	0.00	0.88	0.26	0.09	6.23	0.86	0.30	2.09	1.48	1.66	0.31	0.44	4.67	0.00	0.45	0.05	0.28	12.59	
Taxi / TNC Person Trips	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.04	0.02	0.01	0.01	0.02	0.04	0.00	0.04	0.00	0.10	0.05	0.01	0.35	
Daily Non-Work Trips	0.03	0.00	0.12	0.06	0.06	0.01	0.04	0.09	0.00	0.07	0.02	0.01	0.51	0.07	0.03	0.18	0.13	0.14	0.03	0.04	0.41	0.00	0.04	0.00	0.02	1.08	
Transit Person Trips	0.17	0.38	0.11	0.04	0.00	0.00	0.00	0.01	0.00	0.01	0.02	0.00	0.74	1.88	1.51	0.16	0.13	0.14	0.57	0.06	0.27	0.12	0.00	0.79	1.17	0.01	6.67
Daily Non-Work Trips	0.20	0.08	0.42	0.27	0.08	0.00	0.03	0.02	0.00	0.28	0.11	0.01	1.50	0.41	0.14	0.37	0.07	0.19	0.42	0.11	0.55	0.00	0.10	0.04	0.00	2.05	
Auto Vehicle Trips	0.15	0.02	0.05	0.03	0.00	0.00	0.01	0.00	0.00	0.13	0.01	0.01	0.44	0.46	0.18	0.15	0.14	0.28	0.47	0.03	0.48	0.02	1.14	0.59	0.11	4.00	
Daily Non-Work Trips	0.30	0.06	1.06	0.59	0.44	0.10	0.33	0.65	0.00	0.50	0.19	0.05	4.29	0.46	0.12	1.19	0.75	0.87	0.14	0.30	2.07	0.00	0.34	0.03	0.19	6.46	
Taxi / TNC Vehicle Trips	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.02	0.03	0.01	0.01	0.01	0.01	0.02	0.00	0.02	0.00	0.06	0.03	0.01	0.21	
Daily Non-Work Trips	0.02	0.00	0.07	0.03	0.03	0.01	0.02	0.05	0.00	0.04	0.01	0.00	0.30	0.04	0.02	0.11	0.08	0.08	0.02	0.02	0.24	0.00	0.02	0.00	0.01	0.65	
Total Vehicle Trips	0.94	0.55	2.04	1.09	0.87	0.20	0.60	1.24	0.00	1.39	0.42	0.13	9.48	3.76	2.22	2.97	1.98	2.87	0.92	0.89	6.26	0.02	2.62	1.90	0.43	26.84	
In and Out Total Vehicle Trips	4.70	2.77	5.01	3.07	3.74	1.11	1.49	7.50	0.02	4.01	2.32	0.56	36.31														
Percent	1%	0%	1%	1%	1%	0%	0%	1%	0%	1%	0%	0%	1.540														
AVO																											

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Distribution of Residential Trips for Developer's Proposed Option- Daily

Mode	Downtown / NorthBeach										Inbound															
	Downtown / NorthBeach	SoMa	Marina/Western Market	Mission/ Potrero	Outer Mission/Hills	Bayshore	Richmond	Sunset	Islands	South Bay	East Bay	North Bay	Total	Downtown / NorthBeach	SoMa	Marina/Western Market	Mission/ Potrero	Outer Mission/Hills	Bayshore	Richmond	Sunset	Islands	South Bay	East Bay	North Bay	Total
Auto Person Trips	54.26	8.94	41.01	26.74	42.91	29.06	25.43	26.31	0.00	76.56	58.61	4.56	394.39	47.64	11.41	41.33	13.99	31.95	26.20	23.23	28.43	0.83	34.09	44.88	7.05	371.03
PM Non-Work Trips	61.42	28.90	363.18	94.33	190.60	12.83	122.14	376.79	0.00	157.93	38.18	25.65	1471.97	76.17	23.02	355.12	147.11	207.92	14.89	112.15	365.81	0.00	163.02	19.75	30.25	1515.21
Taxi / TNC Person Trips	4.76	0.78	3.60	2.35	3.76	2.55	2.23	2.31	0.00	6.72	5.14	0.40	34.60	4.18	1.00	3.63	1.23	2.80	2.30	2.04	2.49	0.07	8.25	3.94	0.62	32.55
PM Non-Work Trips	5.39	2.53	31.86	8.27	16.72	1.13	10.71	33.05	0.00	13.85	3.35	2.25	129.12	6.68	2.02	31.15	12.90	18.24	1.31	9.84	32.09	0.00	14.30	1.73	2.65	132.91
Transit Person Trips	178.97	130.56	49.72	22.23	30.88	4.07	13.86	10.10	0.00	43.67	67.18	0.00	551.24	160.80	109.34	13.28	21.45	31.56	4.07	14.85	7.10	0.00	44.70	7.54	0.00	484.55
PM Non-Work Trips	85.00	21.18	58.91	16.11	121.25	2.81	6.18	35.52	0.00	20.99	5.04	0.00	372.99	58.41	8.22	71.91	106.43	35.13	3.68	12.97	38.13	0.00	18.26	6.22	0.00	359.36
Auto VehicleTrips*	48.26	7.33	35.18	25.14	42.01	29.06	24.53	25.73	0.00	71.58	54.96	4.56	368.34	41.31	9.27	35.06	13.99	31.66	26.20	23.23	27.88	0.83	82.70	41.08	7.05	340.26
PM Non-Work Trips	39.43	23.94	196.38	59.53	125.60	6.86	76.41	191.67	0.00	85.85	28.46	16.64	850.76	47.45	14.12	182.66	75.05	147.55	7.75	74.00	193.90	0.00	92.76	19.08	24.52	888.55
Taxi / TNC Vehicle Trips	2.85	0.47	2.15	1.40	2.25	1.53	1.34	1.38	0.00	4.02	3.08	0.24	20.72	2.50	0.60	2.17	0.73	1.68	1.38	1.22	1.49	0.04	4.94	2.36	0.37	19.49
PM Non-Work Trips	3.23	1.52	19.08	4.95	10.01	0.67	6.42	19.79	0.00	8.30	2.01	1.35	77.32	4.00	1.21	18.65	7.73	10.92	0.78	5.89	19.21	0.00	8.56	1.04	1.59	79.59
Total Vehicle Trips	389.81	192.90	548.28	170.02	406.12	52.44	180.56	484.08	0.00	319.72	###	32.86	2954.30	353.88	155.00	518.41	303.11	327.60	52.45	175.09	474.06	0.90	342.62	151.92	40.57	2895.61
In and Out Total Vehicle Trips	743.69	347.91	1066.69	473.13	733.72	104.89	355.65	958.14	0.90	662.33	###	73.42	5849.91													
Percent	13%	6%	18%	8%	13%	2%	6%	16%	0%	11%	6%	1%														
AVO														1.35302												

AVO

1.53502

Distribution of Residential Trips for Additional Housing Option - Daily

Mode	Outbound													Inbound												
	Countdown / Northbeach	SoMa	Marina/ Western Market	Mission/ Potrero	Outer Mission/Hills	Bayshore	Richmond	Sunset	Islands	South Bay	East Bay	North Bay	Total	Countdown / Northbeach	SoMa	Marina/ Western Market	Mission/ Potrero	Outer Mission/Hills	Bayshore	Richmond	Sunset	Islands	South Bay	East Bay	North Bay	Total
Daily Work Trips	119.98	18.09	86.08	38.75	71.36	35.79	46.50	32.98	0.00	113.73	71.59	8.98	643.83	110.43	26.62	91.18	19.55	58.23	32.10	24.11	35.06	0.86	115.32	58.64	13.56	585.64
Daily Non-Work Trips	117.57	34.38	485.28	126.59	232.39	126.51	151.15	404.80	0.00	202.56	47.13	34.44	1962.79	138.57	45.12	503.77	206.55	255.50	89.15	153.56	398.69	0.00	210.36	44.64	39.58	2095.48
Taxi/ TNC Person Trips	10.52	1.59	7.55	3.40	6.26	3.14	4.08	2.89	0.00	9.98	6.28	0.79	56.48	9.69	2.33	8.00	1.71	5.11	2.82	2.11	3.08	0.08	10.12	5.14	1.19	51.37
Daily Non-Work Trips	10.31	3.02	42.57	11.10	20.39	11.10	13.26	35.51	0.00	17.77	4.13	3.02	172.17	12.16	3.96	44.19	18.12	22.41	8.70	13.47	34.97	0.00	18.45	3.92	3.47	183.81
Daily Work Trips	230.67	112.23	59.29	44.85	26.03	3.11	13.57	24.58	0.00	72.33	#####	0.00	694.94	204.01	95.85	23.39	16.40	24.68	3.11	11.36	13.10	0.00	73.64	83.94	0.00	549.50
Transit Person Trips	207.17	37.01	141.70	40.70	110.89	2.69	32.58	30.80	0.00	22.75	24.00	0.00	650.31	129.43	22.59	169.82	113.52	35.49	21.98	34.31	38.77	0.00	17.33	13.46	0.00	596.71
Daily Non-Work Trips	97.37	15.29	67.73	36.30	69.91	35.79	45.56	32.05	0.00	103.37	67.81	8.98	580.16	88.24	23.34	74.87	19.18	57.40	32.10	34.31	33.34	0.86	100.27	54.69	13.56	521.97
Auto VehicleTrips*	80.22	27.70	282.84	82.28	146.58	62.07	102.14	209.02	0.00	115.94	35.16	22.87	1166.83	88.30	31.96	293.02	111.93	178.16	63.20	110.33	216.13	0.00	134.22	34.23	31.41	1290.90
Daily Non-Work Trips	6.30	0.95	4.52	2.04	3.75	1.88	2.44	1.73	0.00	5.97	3.76	0.47	33.82	5.80	1.40	4.79	1.03	3.06	1.69	1.27	1.84	0.03	6.06	3.08	0.71	30.76
Taxi/ TNC Vehicle Trips*	6.18	1.81	25.49	6.65	12.21	6.64	7.94	21.26	0.00	10.64	2.48	1.81	103.10	7.28	2.37	26.46	10.85	13.42	5.21	8.07	20.94	0.00	11.05	2.34	2.08	110.07
Daily Non-Work Trips	696.23	206.31	822.47	265.40	467.32	182.34	261.13	531.57	0.00	439.12	#####	47.23	4180.53	604.28	196.47	840.34	375.86	401.41	167.84	238.95	523.66	0.94	445.21	209.75	57.80	4062.52
Total Vehicle Trips																										
In and Out Total Vehicle Trips	1300.51	402.77	1662.81	641.26	868.73	350.18	500.08	1055.23	0.94	884.33	#####	105.03	8243.06													
Percent	16%	5%	20%	8%	11%	4%	6%	13%	0%	11%	6%	1%														

AVO

Distribution of Retail Trips - Daily

Mode	Outbound														Inbound											
	Downtown / Western Northbeach	SoMa	Marina/ Western Market	Mission/ Potrero	Outer Mission/Hills	Bayshore	Richmond	Sunset	Islands	South Bay	East Bay	North Bay	Total	Downtown / Northbeach	SoMa	Marina/ Western Market	Mission/ Potrero	Outer Mission/Hills	Bayshore	Richmond	Sunset	Islands	South Bay	East Bay	North Bay	Total
Daily Work Trips	553	0.06	0.18	0.20	0.25	0.18	0.10	0.11	0.02	22.85	24.24	9.15	57.86	0.56	0.27	0.25	0.35	0.17	0.21	0.13	0.18	0.00	25.98	27.44	10.56	66.10
Survey, Business Trips																										

Auto Person Trips	Daily Non-Work Trips	0.54	0.48	0.64	0.33	1.37	0.75	0.32	1.47	0.01	142.49	####	47.50	349.85	0.50	0.27	0.61	0.46	1.19	1.05	0.30	0.96	0.00	139.29	150.22	45.83	340.69	
	Taxi / TMC Person Trips	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.42	0.45	0.17	1.07	0.01	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.48	0.51	0.19	1.22	
	Daily Non-Work Trips	0.01	0.01	0.01	0.01	0.03	0.01	0.01	0.03	0.00	2.62	2.84	0.87	6.44	0.01	0.00	0.00	0.02	0.02	0.00	0.02	0.01	0.00	0.00	2.57	2.77	0.84	6.27
	Daily Work Trips	4.58	1.82	0.23	0.82	0.26	0.00	1.38	1.52	0.00	6.95	6.04	0.40	24.01	7.15	1.88	0.46	0.56	0.24	0.00	1.38	2.20	0.00	11.37	10.45	0.40	36.09	
	Transit Person Trips	2.09	0.66	1.64	1.32	0.43	1.13	0.03	1.70	0.00	26.35	46.26	3.51	85.13	4.77	0.81	0.21	1.85	0.47	0.06	0.00	1.70	0.00	26.77	48.57	5.07	80.28	
	Auto Vehicle Trips	0.45	0.05	0.17	0.15	0.22	0.16	0.07	0.11	0.02	20.17	21.67	8.19	51.42	0.50	0.23	0.21	0.30	0.15	0.17	0.10	0.16	0.00	23.06	24.79	9.55	59.23	
	Daily Non-Work Trips	0.23	0.29	0.41	0.23	0.83	0.43	0.23	0.86	0.01	88.94	97.21	31.88	221.54	0.23	0.20	0.40	0.26	0.63	0.50	0.19	0.63	0.00	84.79	93.26	30.26	211.34	
	Taxi / TMC Vehicle Trips	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.25	0.27	0.10	0.64	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.29	0.30	0.12	0.73	
	Daily Non-Work Trips	0.01	0.01	0.01	0.00	0.02	0.01	0.00	0.02	0.00	1.57	1.70	0.52	3.86	0.01	0.00	0.01	0.01	0.01	0.01	0.00	0.01	0.00	1.54	1.66	0.51	3.76	
	Total Vehicle Trips	7.76	3.03	2.70	2.68	2.35	2.08	1.84	4.82	0.03	201.68	####	61.60	524.36	13.00	3.24	1.56	3.24	2.09	1.34	1.82	5.05	0.00	206.45	239.95	62.91	540.64	
In and Out Total Vehicle Trips	20.76	6.27	4.26	5.91	4.44	3.42	3.65	9.88	0.03	408.13	####	124.51	1065.00															
	39%	12%	8%	11%	8%	6%	7%	19%	0%	767%	891%	234%																
	Percent																											
	AVO																											

Distribution of Residential Trips for Additional Housing Option in PM Peak Period																										
		Outbound													Inbound											
		Downtown / Northbay	SoMa	West / Western Market	Mission / Potrero	Outer Mission / Hillside	Bayshore	Richmond	Sunset	Islands	South Bay	East Bay	Total	Downtown / Northbay	SoMa	West / Western Market	Mission / Potrero	Outer Mission / Hillside	Bayshore	Richmond	Sunset	Islands	South Bay	East Bay	Total	
Mode	Daily Work Trips	3.23	0.46	0.17	0.24	0.00	0.00	0.00	0.00	0.00	2.22	0.00	6.32	10.32	4.57	2.30	2.75	6.12	9.27	0.17	10.53	0.37	24.85	12.76	2.41	86.42
	Daily Non-Work Trips	6.80	0.91	27.97	12.56	10.85	2.52	9.23	20.79	0.00	16.11	4.48	1.56	113.76	17.50	6.11	44.80	32.13	33.95	5.80	8.07	101.29	0.00	7.52	0.44	5.89
	Taxi / TMC Person Trips	0.28	0.04	0.01	0.02	0.00	0.00	0.00	0.00	0.00	0.20	0.00	0.55	0.90	0.40	0.20	0.24	0.54	0.81	0.02	0.92	0.03	2.18	1.12	0.21	7.58
	Daily Non-Work Trips	0.60	0.08	2.45	1.10	0.95	0.22	0.81	1.82	0.00	1.41	0.39	0.14	9.98	1.54	0.54	3.93	2.82	2.98	0.51	0.71	8.89	0.00	0.66	0.04	0.52
	Transit Person Trips	2.96	8.39	2.18	0.00	0.00	0.00	0.00	0.00	0.00	0.27	0.00	0.00	13.80	40.78	33.28	3.18	2.82	12.15	1.36	5.94	2.57	0.00	17.34	25.32	0.00
	Daily Non-Work Trips	2.58	1.46	7.53	4.88	1.33	0.00	0.00	0.00	0.00	5.70	0.45	0.00	23.94	7.27	3.01	6.48	0.89	3.46	1.47	2.41	11.77	0.00	1.60	0.62	0.00
	Daily Work Trips	3.23	0.46	0.08	0.24	0.00	0.00	0.00	0.00	0.00	2.22	0.00	0.00	6.24	9.73	3.86	2.22	2.75	6.00	9.27	0.17	10.53	0.37	24.85	12.76	2.41
	Daily Non-Work Trips	5.74	0.91	22.50	11.79	7.39	1.48	6.17	12.78	0.00	9.28	3.73	0.78	82.55	9.55	2.34	25.38	16.07	17.64	2.76	5.46	44.69	0.00	6.02	0.44	
	Taxi / TMC Vehicle Trips	0.17	0.02	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.12	0.00	0.00	0.33	0.54	0.24	0.12	0.14	0.32	0.49	0.01	0.55	0.02	1.31	0.67	
	Daily Non-Work Trips	0.36	0.05	1.47	0.66	0.57	0.13	0.48	1.09	0.00	0.85	0.24	0.08	5.98	0.92	0.32	2.35	1.69	1.78	0.30	0.42	5.32	0.00	0.40	0.02	
Total Vehicle Trips		16.45	11.35	40.32	18.80	13.13	2.74	10.04	22.88	0.00	25.64	5.32	1.70	168.36	78.31	47.91	60.90	41.65	59.20	19.22	17.31	135.97	0.40	54.14	40.30	9.03
In and Out Total Vehicle Trips		94.75	59.26	101.22	60.45	72.33	21.96	27.35	158.85	0.40	79.78	45.63	10.73	732.72												
Percent		13%	8%	14%	8%	10%	3%	4%	22%	0%	11%	6%	1%													
AVO																										

Summary of Distribution of Trips for Additional Housing Option in PM Peak Period -w/o Daycare																											
Mode		Outbound										Inbound															
		Downtown / Northbay	SoMa	Western Market	Mission/ Potrero	Outer Mission/Hills	Bayshore	Richmond	Islands	South Bay	East Bay	North Bay	Total	Downtown/ Northbay	SoMa	Market / Western Market	Mission/ Potrero	Outer Mission/Hills	Bayshore	Richmond	Islands	South Bay	East Bay	North Bay	Total		
Auto Person Trips	Daily Work Trips	3.23	0.51	0.24	0.71	0.06	0.04	0.21	0.11	0.00	2.58	0.10	0.28	8.07	10.65	4.69	3.08	3.27	6.24	9.34	0.35	10.57	0.37	25.35	12.78	2.42	89.10
	Daily Non-Work Trips	7.43	1.01	28.68	14.42	16.07	3.31	10.41	24.93	0.00	18.98	5.49	1.89	132.62	17.25	6.37	45.63	32.73	36.45	5.92	9.49	104.06	0.00	10.23	0.88	6.09	275.60
	Taxi / TMC Person Trips	0.28	0.04	0.02	0.05	0.00	0.00	0.01	0.01	0.00	0.21	0.01	0.01	0.65	0.92	0.41	0.24	0.27	0.54	0.82	0.02	0.93	0.03	2.21	1.12	0.21	7.72
	Daily Non-Work Trips	0.63	0.09	2.49	1.20	1.23	0.26	0.87	2.04	0.00	1.57	0.45	0.15	10.99	1.55	0.55	3.97	2.85	3.11	0.52	0.78	9.03	0.00	0.80	0.06	0.53	23.76
	Transit Person Trips	3.38	8.39	2.18	1.39	0.01	0.02	0.00	0.34	0.00	0.01	0.00	0.00	15.73	41.26	33.60	3.44	3.00	13.08	1.36	5.94	2.57	0.00	17.60	26.02	0.00	147.85
Auto Vehicle Trips	Daily Non-Work Trips	3.70	1.61	7.85	6.17	1.80	0.07	0.26	0.61	0.00	6.33	1.57	0.08	30.05	8.32	3.01	7.80	1.52	4.61	1.47	2.46	11.91	0.00	2.01	0.64	0.00	43.76
	Auto Vehicle Trips*	3.23	0.51	0.15	0.60	0.06	0.04	0.21	0.07	0.00	2.56	0.10	0.20	7.73	10.04	3.94	2.80	3.11	6.10	9.34	0.33	10.57	0.37	25.29	12.78	2.42	87.09
	Daily Non-Work Trips	6.24	1.01	22.85	12.63	9.86	1.97	6.90	14.56	0.00	10.71	4.25	0.94	91.91	9.66	2.48	25.81	16.48	19.01	2.83	6.33	45.96	0.00	7.62	0.64	4.07	140.88
	Taxi / TMC Vehicle Trips	0.17	0.03	0.01	0.03	0.00	0.00	0.01	0.00	0.00	0.13	0.00	0.01	0.39	0.55	0.24	0.15	0.16	0.33	0.49	0.01	0.55	0.02	1.32	0.67	0.13	4.63
	Daily Non-Work Trips	0.38	0.05	1.49	0.72	0.74	0.16	0.52	1.22	0.00	0.94	0.27	0.09	6.58	0.93	0.33	2.38	1.71	1.86	0.31	0.47	5.41	0.00	0.48	0.04	0.32	14.23
Subtotal Percent		18.65	11.65	41.46	23.93	19.18	3.72	11.76	28.04	0.00	29.69	7.62	2.42	198.11	80.45	48.62	64.17	43.64	64.03	19.42	19.05	139.06	0.40	58.21	41.50	9.25	587.80
	In and Out Total	9%	6%	21%	12%	10%	2%	6%	14%	0%	15%	4%	1%		14%	8%	11%	7%	11%	3%	3%	24%	0%	10%	7%	2%	
	Percent	99.10	60.27	105.63	67.57	83.21	23.14	30.81	167.11	0.40	87.90	49.12	11.67	785.91													
	AVO	13%	8%	13%	9%	11%	3%	4%	21%	0%	11%	6%	1%														

Summary of Trip Distribution for Developer's Proposed Option in PM Peak period - w/o Daycare																											
		Outbound													Inbound												
Mode		Downtown / Northbay	SoMa	Marina/ Western	Mission/ Potrero	Outer Mission/Hillside	Bayshore	Richmond	Islands	South Bay	East Bay	North Bay	Total	Downtown / Northbay	SoMa	Marina/Western Market	Mission/ Potrero	Outer Mission/Hillside	Bayshore	Richmond	Islands	South Bay	East Bay	North Bay	Total		
Auto Person Trips	Daily Work Trips	2.40	0.39	0.84	0.62	0.06	0.05	0.24	0.09	0.01	2.15	0.24	0.23	7.32	7.77	3.52	2.49	2.36	4.49	6.65	0.42	7.53	0.26	18.12	9.30	1.74	64.67
	Daily Non-Work Trips	6.02	1.03	21.25	10.72	11.44	2.80	8.04	17.49	0.00	13.97	4.03	1.50	98.29	13.52	4.73	32.94	23.38	26.19	4.82	7.02	0.00	7.14	0.72	4.43	198.66	
	Taxi / TNC Person Trips	0.21	0.03	0.05	0.04	0.00	0.00	0.01	0.00	0.00	0.17	0.01	0.01	0.54	0.67	0.30	0.19	0.19	0.29	0.58	0.03	0.66	0.02	1.57	0.81	0.15	5.56
	Daily Non-Work Trips	0.49	0.08	1.82	0.88	0.88	0.21	0.65	1.44	0.00	1.14	0.32	0.12	8.02	1.15	0.40	2.85	2.03	2.23	0.40	0.57	0.41	0.00	0.56	0.05	0.38	17.03
Transit Person Trips	Daily Work Trips	2.64	5.96	1.68	0.69	0.04	0.01	0.00	0.22	0.00	0.14	0.29	0.05	11.72	29.75	23.80	2.54	2.11	1.88	0.00	12.43	0.00	12.43	18.40	0.08	105.28	
	Daily Non-Work Trips	3.13	1.26	6.60	4.22	1.34	0.04	0.47	0.31	0.00	4.41	1.79	0.13	23.70	6.47	2.27	5.82	1.11	2.99	1.04	1.79	8.62	0.03	1.53	0.70	0.01	32.39
Auto Vehicle Trips	Daily Work Trips	2.40	0.39	0.72	0.55	0.05	0.05	0.19	0.06	0.01	2.11	0.20	0.18	6.91	7.32	2.88	2.30	2.23	4.40	6.65	0.41	7.53	0.26	18.07	9.30	1.74	63.10
	Daily Non-Work Trips	4.74	0.95	16.81	9.24	6.99	1.63	5.25	10.28	0.00	7.94	3.08	0.25	67.66	7.30	1.91	18.72	11.87	13.78	2.25	4.68	32.63	0.00	5.35	0.50	2.93	101.91
Taxi / TNC Vehicle	Daily Work Trips	0.12	0.02	0.03	0.02	0.00	0.00	0.01	0.00	0.00	0.10	0.01	0.01	0.33	0.40	0.18	0.11	0.12	0.23	0.35	0.02	0.39	0.01	0.84	0.48	0.09	3.33

Trip Distribution													
PM Peak Hour													
Additional Housing													
Trip Distribution													
PM Peak Hour													
Developer's													
Proposed Option													
For Trip Assignment													
Trip Distribution													
PM Peak Hour													
Additional Housing													
Option													
Outbound													
Vehicle Trips	19	12	41	24	19	4	12	28	0	30	8	2	198
Percent	9%	6%	21%	12%	10%	2%	6%	14%	0%	15%	4%	1%	100%
Inbound													
Vehicle Trips	80	49	64	44	64	19	19	139	0	58	42	9	588
Percent	14%	8%	11%	7%	11%	3%	3%	24%	0%	10%	7%	2%	100%
Group 1													
Group 2													
Group 3													
39%													
36%													
27%													

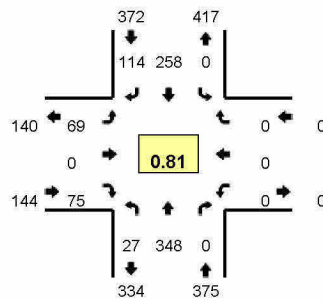
Appendix B – Driveway Counts

LOCATION: Phelan Ave -- CCSF Lot North Access

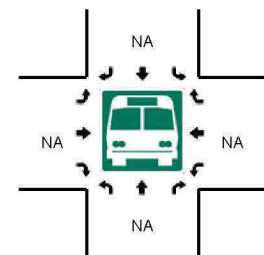
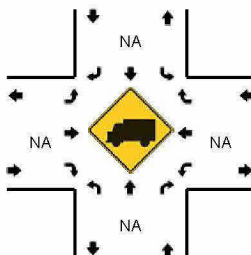
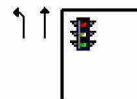
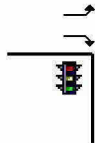
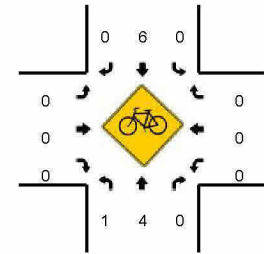
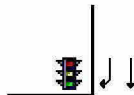
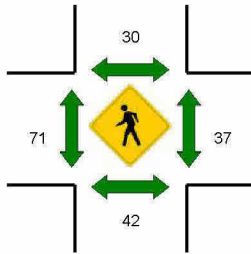
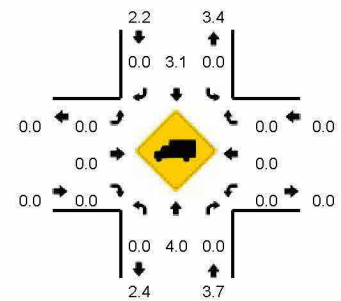
QC JOB #: 14574807

CITY/STATE: San Francisco, CA

DATE: Thu, Dec 07 2017



Peak-Hour: 7:35 AM – 8:35 AM
Peak 15-Min: 7:40 AM – 7:55 AM



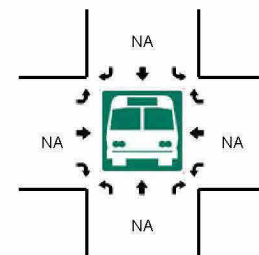
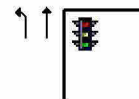
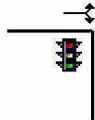
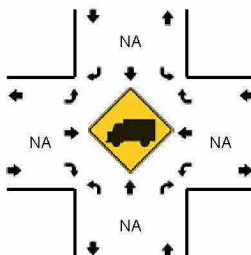
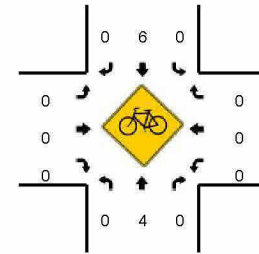
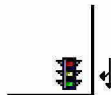
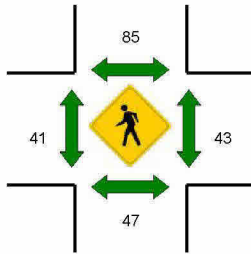
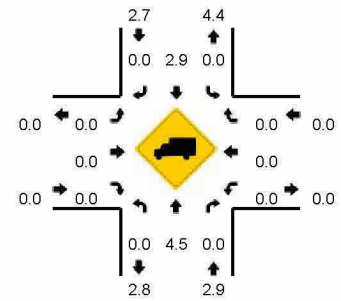
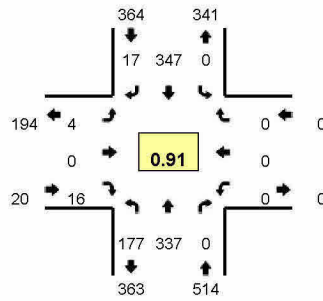
5-Min Count Period Beginning At	Phelan Ave (Northbound)				Phelan Ave (Southbound)				CCSF Lot North Access (Eastbound)				CCSF Lot North Access (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	10	0	0	0	14	0	0	3	0	4	0	0	0	0	0	31	
7:05 AM	2	15	0	0	0	14	1	0	6	0	2	0	0	0	0	0	40	
7:10 AM	0	21	0	0	0	16	1	0	3	0	3	0	0	0	0	0	44	
7:15 AM	1	26	0	0	0	15	1	0	3	0	5	0	0	0	0	0	51	
7:20 AM	0	20	0	0	0	25	0	0	4	0	5	0	0	0	0	0	54	
7:25 AM	0	25	0	0	0	12	2	0	8	0	6	0	0	0	0	0	53	
7:30 AM	2	30	0	0	0	19	1	0	8	0	12	0	0	0	0	0	72	
7:35 AM	3	31	0	1	0	19	4	0	10	0	8	0	0	0	0	0	76	
7:40 AM	3	54	0	0	0	16	3	0	13	0	9	0	0	0	0	0	98	
7:45 AM	3	36	0	0	0	24	7	0	16	0	20	0	0	0	0	0	106	
7:50 AM	1	32	0	0	0	13	9	0	6	0	9	0	0	0	0	0	70	
7:55 AM	2	23	0	0	0	28	12	0	6	0	7	0	0	0	0	0	78	
8:00 AM	2	30	0	0	0	25	16	0	1	0	1	0	0	0	0	0	75	817
8:05 AM	2	24	0	0	0	29	16	0	4	0	6	0	0	0	0	0	81	858
8:10 AM	4	21	0	0	0	29	11	0	3	0	2	0	0	0	0	0	70	884
8:15 AM	0	21	0	0	0	13	5	0	0	0	6	0	0	0	0	0	45	878
8:20 AM	0	19	0	0	0	29	9	0	3	0	2	0	0	0	0	0	62	886
8:25 AM	3	32	0	0	0	20	11	0	4	0	3	0	0	0	0	0	73	906
8:30 AM	3	25	0	0	0	13	11	0	3	0	2	0	0	0	0	0	57	891
8:35 AM	1	27	0	0	0	19	9	0	4	0	5	0	0	0	0	0	65	880
8:40 AM	1	24	0	0	0	29	19	0	6	0	3	0	0	0	0	0	82	864
8:45 AM	5	25	0	0	0	30	17	0	7	0	1	0	0	0	0	0	85	843
8:50 AM	1	20	0	0	0	23	9	0	8	0	7	0	0	0	0	0	68	841
8:55 AM	1	12	0	0	0	30	19	0	6	0	7	0	0	0	0	0	75	838
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	28	488	0	0	0	212	76	0	140	0	152	0	0	0	0	0	1096	
Heavy Trucks	0	8	0	0	0	8	0	0	0	0	0	0	0	0	0	0	16	
Pedestrians		44				36				80				24			184	
Bicycles	0	0	0		0	2	0		0	0	0		0	0	0		2	
Railroad																		
Stopped Buses																		

Comments:

LOCATION: Phelan Ave -- CCSF Lot Central
CITY/STATE: San Francisco, CA

QC JOB #: 14574811
DATE: Thu, Dec 07 2017

Peak-Hour: 7:35 AM – 8:35 AM
Peak 15-Min: 7:40 AM – 7:55 AM



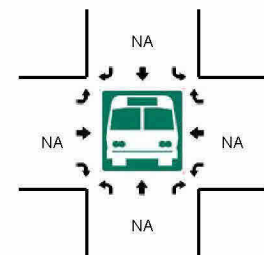
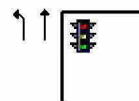
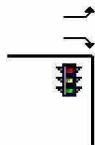
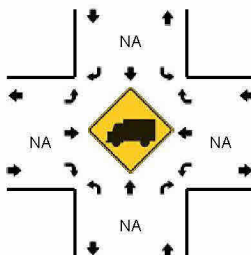
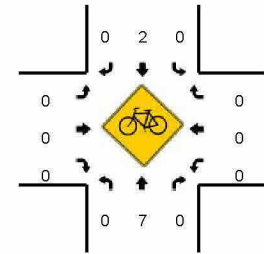
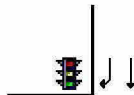
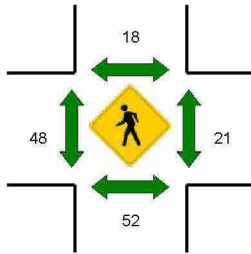
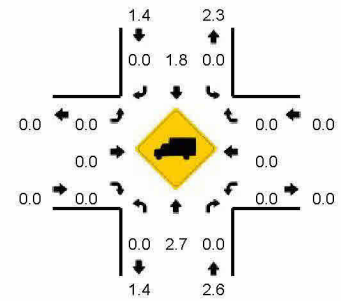
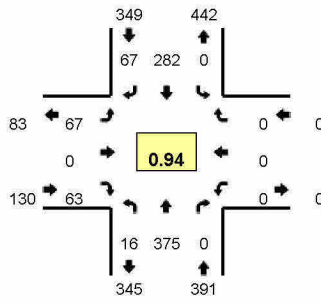
5-Min Count Period Beginning At	Phelan Ave (Northbound)				Phelan Ave (Southbound)				CCSF Lot Central (Eastbound)				CCSF Lot Central (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	4	11	0	0	0	17	0	0	0	0	1	0	0	0	0	0	33	
7:05 AM	8	17	0	0	0	17	1	0	0	0	2	0	0	0	0	0	45	
7:10 AM	4	21	0	0	0	19	0	0	0	0	0	0	0	0	0	0	44	
7:15 AM	7	26	0	0	0	24	0	0	0	0	0	0	0	0	0	0	57	
7:20 AM	3	16	0	0	0	24	0	0	1	0	1	0	0	0	0	0	45	
7:25 AM	9	32	0	0	0	21	0	0	0	0	2	0	0	0	0	0	64	
7:30 AM	9	30	0	0	0	33	0	0	1	0	3	0	0	0	0	0	76	
7:35 AM	11	34	0	0	0	29	0	0	0	0	2	0	0	0	0	0	76	
7:40 AM	8	55	0	0	0	26	0	0	1	0	4	0	0	0	0	0	94	
7:45 AM	15	26	0	0	0	32	1	0	0	0	0	0	0	0	0	0	74	
7:50 AM	14	33	0	0	0	32	0	0	0	0	1	0	0	0	0	0	80	
7:55 AM	13	22	0	0	0	31	2	0	2	0	0	0	0	0	0	0	70	758
8:00 AM	18	21	0	0	0	33	2	0	0	0	3	0	0	0	0	0	77	802
8:05 AM	23	20	0	0	0	32	4	0	0	0	2	0	0	0	0	0	81	838
8:10 AM	18	23	0	0	0	39	2	0	0	0	0	0	0	0	0	0	82	876
8:15 AM	17	20	0	0	0	27	0	0	0	0	2	0	0	0	0	0	66	885
8:20 AM	12	24	0	0	0	22	1	0	1	0	0	0	0	0	0	0	60	900
8:25 AM	18	27	0	0	0	29	2	0	0	0	0	0	0	0	0	0	76	912
8:30 AM	10	32	0	0	0	15	3	0	0	0	2	0	0	0	0	0	62	898
8:35 AM	13	20	0	0	0	30	2	0	0	0	2	0	0	0	0	0	67	889
8:40 AM	28	19	0	0	0	26	2	0	2	0	3	0	0	0	0	0	80	875
8:45 AM	16	28	0	0	0	35	4	0	1	0	2	0	0	0	0	0	86	887
8:50 AM	21	16	0	0	0	30	2	0	0	0	0	0	0	0	0	0	69	876
8:55 AM	29	14	0	0	0	34	2	0	0	0	4	0	0	0	0	0	83	889
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	148	456	0	0	0	360	4	0	4	0	20	0	0	0	0	0	992	
Heavy Trucks	0	16	0	0	0	8	0	0	0	0	0	0	0	0	0	0	24	
Pedestrians		48				56				36				40			180	
Bicycles	0	0	0		0	1	0		0	0	0		0	0	0		1	
Railroad																		
Stopped Buses																		

Comments:

LOCATION: Phelan Ave -- CCSF Lot North Access
CITY/STATE: San Francisco, CA

QC JOB #: 14574808
DATE: Thu, Dec 07 2017

Peak-Hour: 5:00 PM -- 6:00 PM
Peak 15-Min: 5:25 PM -- 5:40 PM

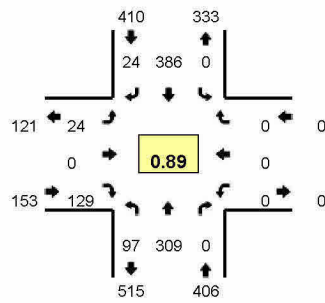


5-Min Count Period Beginning At	Phelan Ave (Northbound)				Phelan Ave (Southbound)				CCSF Lot North Access (Eastbound)				CCSF Lot North Access (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	1	26	0	0	0	17	0	0	4	0	10	0	0	0	0	0	58	
4:05 PM	0	30	0	0	0	19	2	0	5	0	3	0	0	0	0	0	59	
4:10 PM	2	29	0	0	0	19	4	0	16	0	10	0	0	0	0	0	80	
4:15 PM	0	36	0	0	0	18	5	0	10	0	6	0	0	0	0	0	75	
4:20 PM	1	22	0	0	0	18	2	0	7	0	7	0	0	0	0	0	57	
4:25 PM	2	33	0	0	0	20	2	0	3	0	10	0	0	0	0	0	70	
4:30 PM	0	22	0	0	0	19	1	0	7	0	4	0	0	0	0	0	53	
4:35 PM	1	34	0	0	0	18	2	0	4	0	7	0	0	0	0	0	66	
4:40 PM	1	26	0	0	0	16	1	0	13	0	2	0	0	0	0	0	59	
4:45 PM	1	28	0	0	0	18	3	0	5	0	6	0	0	0	0	0	61	
4:50 PM	3	17	0	0	0	23	0	0	7	0	5	0	0	0	0	0	55	
4:55 PM	2	42	0	0	0	12	0	0	7	0	11	0	0	0	0	0	74	767
5:00 PM	1	28	0	0	0	26	2	0	5	0	5	0	0	0	0	0	67	776
5:05 PM	2	35	0	0	0	17	3	0	5	0	12	0	0	0	0	0	74	791
5:10 PM	1	24	0	0	0	25	4	0	9	0	5	0	0	0	0	0	68	779
5:15 PM	1	34	0	0	0	22	6	0	6	0	4	0	0	0	0	0	73	777
5:20 PM	1	34	0	0	0	25	4	0	6	0	6	0	0	0	0	0	76	796
5:25 PM	1	38	0	0	0	22	3	0	7	0	8	0	0	0	0	0	79	805
5:30 PM	1	35	0	0	0	20	5	0	8	0	5	0	0	0	0	0	74	826
5:35 PM	3	34	0	0	0	33	4	0	1	0	4	0	0	0	0	0	79	839
5:40 PM	0	31	0	0	0	21	4	0	3	0	6	0	0	0	0	0	65	845
5:45 PM	0	19	0	0	0	23	10	0	6	0	3	0	0	0	0	0	61	845
5:50 PM	3	31	0	0	0	22	11	0	5	0	3	0	0	0	0	0	75	865
5:55 PM	2	32	0	0	0	26	11	0	6	0	2	0	0	0	0	0	79	870
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	20	428	0	0	0	300	48	0	64	0	68	0	0	0	0	0	928	
Heavy Trucks	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	
Pedestrians		28				16				56				8			108	
Bicycles	0	0	0		0	1	0		0	0	0		0	0	0		1	
Railroad																		
Stopped Buses																		

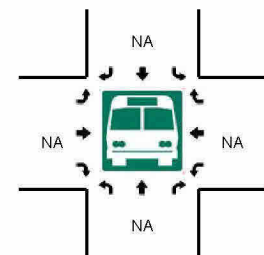
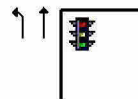
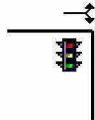
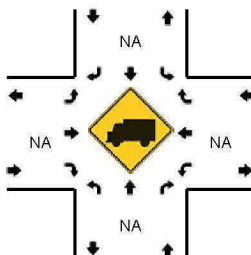
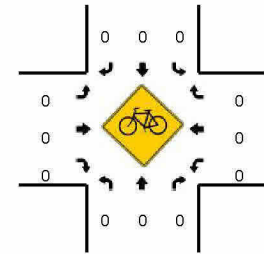
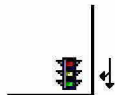
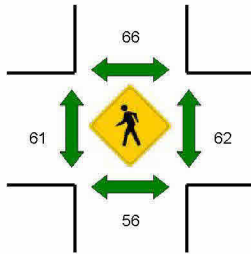
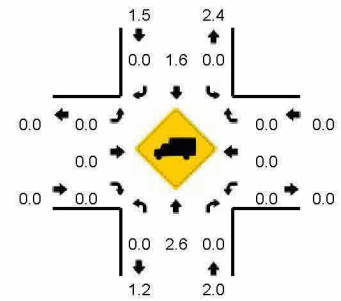
Comments:

LOCATION: Phelan Ave -- CCSF Lot Central
CITY/STATE: San Francisco, CA

QC JOB #: 14574812
DATE: Thu, Dec 07 2017



Peak-Hour: 5:00 PM – 6:00 PM
Peak 15-Min: 5:25 PM – 5:40 PM

[illegible]

Comments:

Appendix C – Parking Supply and Occupancy Counts

Thursday, December 7, 2017



2455 Bates Ave, Suite C
Concord, CA 94529
Ph: 925-587-5026

Date Counted: 12/7/2017
Location: Lower Lot

North Zone					
Count					
Time	Red - 122	Orange - 156	Yellow - 156	Green - 131	Total
7:00 AM	0	0	0	0	0
8:00 AM	0	0	1	0	1
9:00 AM	0	0	1	5	6
10:00 AM	12	16	18	43	89
11:00 AM	30	37	22	80	169
12:00 PM	34	42	25	84	185
1:00 PM	19	24	15	57	115
2:00 PM	7	14	7	31	59
3:00 PM	3	11	7	29	50
4:00 PM	2	3	4	11	20
5:00 PM	1	2	4	7	14
6:00 PM	0	0	1	4	5
7:00 PM	0	0	1	1	2
8:00 PM	0	0	0	0	0
9:00 PM	0	0	0	0	0
SUPPLY	122	156	156	131	565

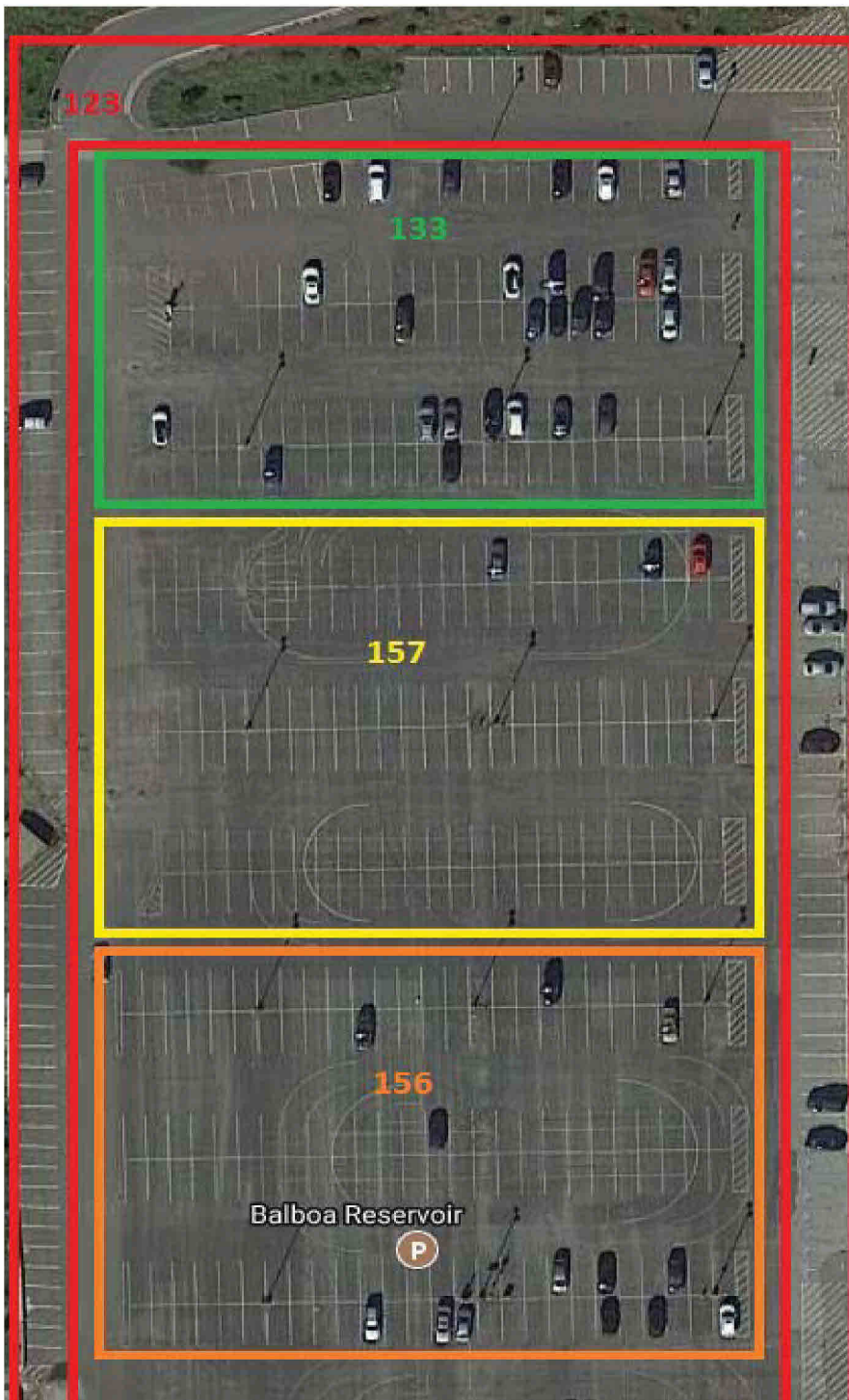
North Zone					
Utilization					
Time	Red - 122	Orange - 156	Yellow - 156	Green - 131	Average
7:00 AM	0%	0%	0%	0%	0%
8:00 AM	0%	0%	1%	0%	0%
9:00 AM	0%	0%	1%	4%	1%
10:00 AM	10%	10%	12%	33%	16%
11:00 AM	25%	24%	14%	61%	31%
12:00 PM	28%	27%	16%	64%	34%
1:00 PM	16%	15%	10%	44%	21%
2:00 PM	6%	9%	4%	24%	11%
3:00 PM	2%	7%	4%	22%	9%
4:00 PM	2%	2%	3%	8%	4%
5:00 PM	1%	1%	3%	5%	3%
6:00 PM	0%	0%	1%	3%	1%
7:00 PM	0%	0%	1%	1%	0%
8:00 PM	0%	0%	0%	0%	0%
9:00 PM	0%	0%	0%	0%	0%
AVG. OCCUPANCY	6%	6%	5%	18%	9%

South Zone				
Count				
Time	Red - 89	Orange - 197	Green - 156	Total
7:00 AM	0	0	0	0
8:00 AM	2	0	0	2
9:00 AM	5	0	0	5
10:00 AM	15	4	25	44
11:00 AM	28	12	26	66
12:00 PM	27	12	29	68
1:00 PM	25	9	18	52
2:00 PM	26	5	11	42
3:00 PM	24	4	9	37
4:00 PM	9	8	3	20
5:00 PM	7	3	2	12
6:00 PM	2	2	0	4
7:00 PM	3	1	0	4
8:00 PM	1	0	1	2
9:00 PM	1	0	0	1
SUPPLY	89	197	156	442

South Zone				
Utilization				
Time	Red - 89	Orange - 197	Green - 156	Average
7:00 AM	0%	0%	0%	0%
8:00 AM	2%	0%	0%	1%
9:00 AM	6%	0%	0%	2%
10:00 AM	17%	2%	16%	12%
11:00 AM	31%	6%	17%	18%
12:00 PM	30%	6%	19%	18%
1:00 PM	28%	5%	12%	15%
2:00 PM	29%	3%	7%	13%
3:00 PM	27%	2%	6%	12%
4:00 PM	10%	4%	2%	5%
5:00 PM	8%	2%	1%	4%
6:00 PM	2%	1%	0%	1%
7:00 PM	3%	1%	0%	1%
8:00 PM	1%	0%	1%	1%
9:00 PM	1%	0%	0%	0%
AVG. OCCUPANCY	13%	2%	5%	7%

Lower Lot		
Time	Occupied Space	Utilization
7:00 AM	0	0%
8:00 AM	3	0%
9:00 AM	11	1%
10:00 AM	133	13%
11:00 AM	235	23%
12:00 PM	253	25%
1:00 PM	167	17%
2:00 PM	101	10%
3:00 PM	87	9%
4:00 PM	40	4%
5:00 PM	26	3%
6:00 PM	9	1%
7:00 PM	6	1%
8:00 PM	2	0%
9:00 PM	1	0%
SUPPLY / AVG. OCCUPANCY	1007	7%

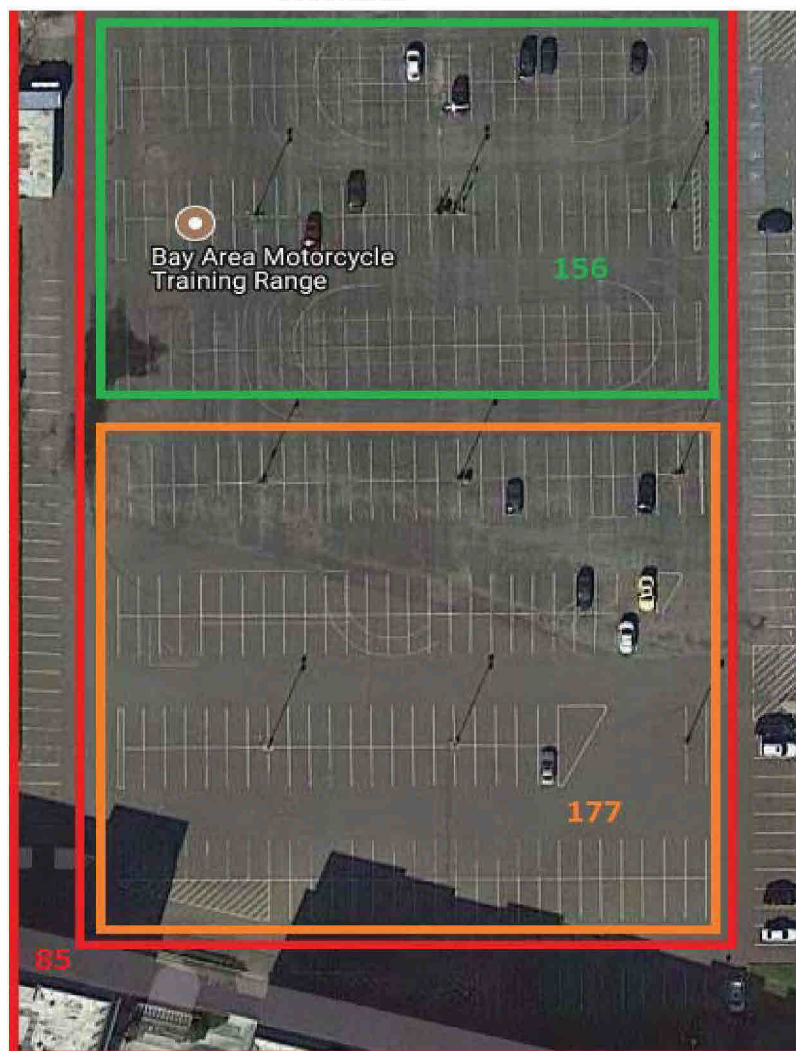
North Zone



Zone	Overhead	On Site
Red	123	122
Orange	156	156
Yellow	157	156
Green	133	131

* Aerial photo used for definition of sub areas for data collection. Aerial photos were not used for parking counts.

South Zone



Zone	Overhead	On Site
Red	85	89
Orange	177	197
Green	156	156

* Aerial photo used for definition of sub areas for data collection.
Aerial photos were not used for parking counts.



2455 Bates Ave, Suite C
Concord, CA 94529
Ph: 925-587-5026

Date Counted: 12/7/2017
Location: Upper Lot

North Zone					
Count					
Time	Red - 176	Orange - 135	Yellow - 263	Green - 198	Total
7:00 AM	6	15	3	4	28
8:00 AM	33	47	20	41	141
9:00 AM	94	116	112	133	455
10:00 AM	175	135	263	198	771
11:00 AM	172	130	256	195	753
12:00 PM	174	135	258	192	759
1:00 PM	168	129	243	186	726
2:00 PM	138	93	180	156	567
3:00 PM	117	72	163	131	483
4:00 PM	91	64	64	87	306
5:00 PM	71	63	44	60	238
6:00 PM	96	88	49	74	307
7:00 PM	112	113	68	108	401
8:00 PM	91	87	55	103	336
9:00 PM	44	32	22	50	148
SUPPLY	176	135	263	198	772

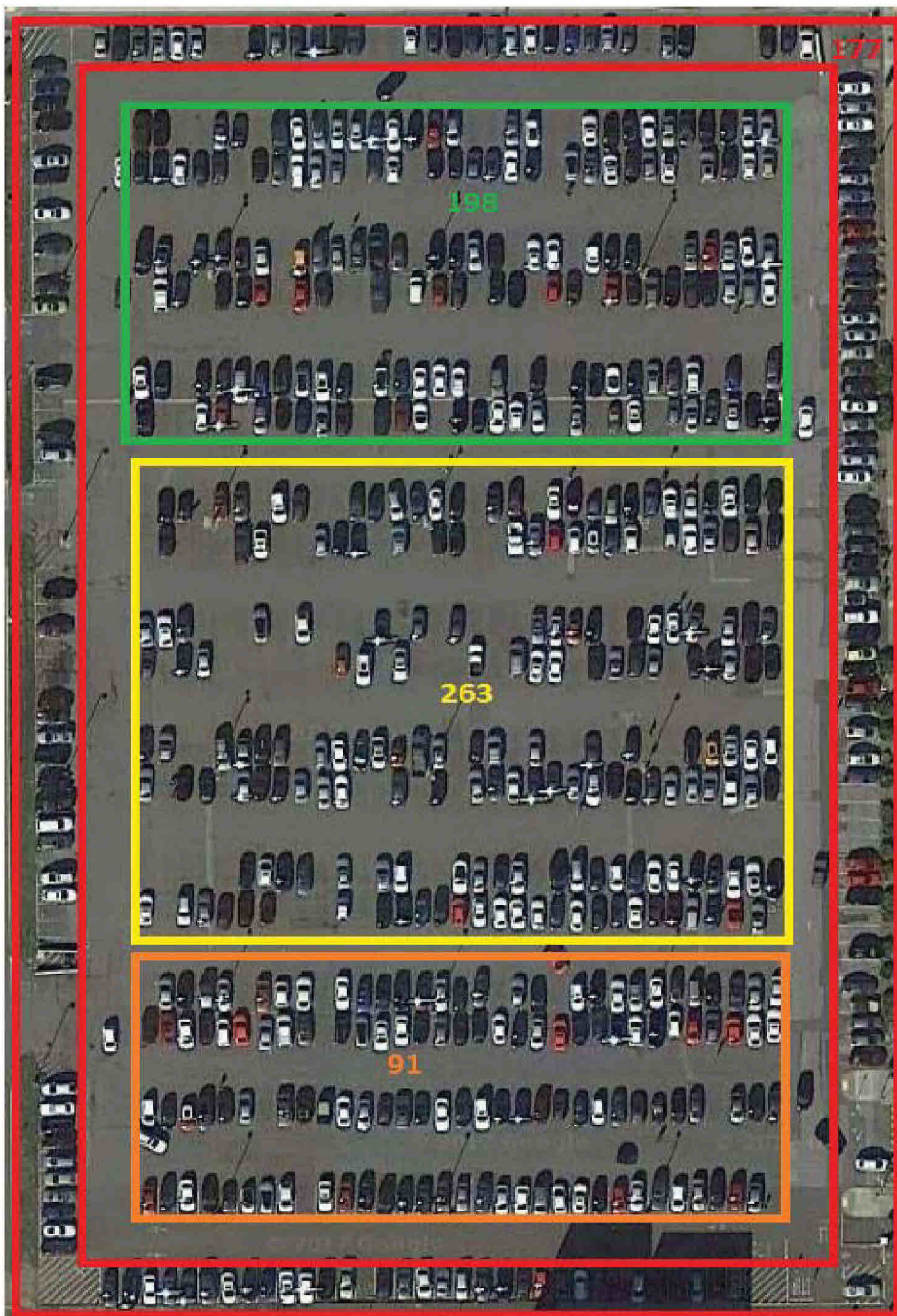
North Zone					
Utilization					
Time	Red - 176	Orange - 135	Yellow - 263	Green - 198	Average
7:00 AM	3%	11%	1%	2%	4%
8:00 AM	19%	35%	8%	21%	20%
9:00 AM	53%	86%	43%	67%	62%
10:00 AM	99%	100%	100%	100%	100%
11:00 AM	98%	96%	97%	98%	97%
12:00 PM	99%	100%	98%	97%	98%
1:00 PM	95%	96%	92%	94%	94%
2:00 PM	78%	69%	68%	79%	74%
3:00 PM	66%	53%	62%	66%	62%
4:00 PM	52%	47%	24%	44%	42%
5:00 PM	40%	47%	17%	30%	34%
6:00 PM	55%	65%	19%	37%	44%
7:00 PM	64%	84%	26%	55%	57%
8:00 PM	52%	64%	21%	52%	47%
9:00 PM	25%	24%	8%	25%	21%
AVG. OCCUPANCY	60%	65%	46%	58%	57%

South Zone				
Count				
Time	Red - 69	Orange - 242	Green - 84	Total
7:00 AM	3	5	3	11
8:00 AM	8	22	10	40
9:00 AM	26	90	43	159
10:00 AM	32	208	67	307
11:00 AM	39	208	71	318
12:00 PM	47	202	75	324
1:00 PM	53	202	77	332
2:00 PM	27	156	63	246
3:00 PM	46	105	59	210
4:00 PM	41	71	58	170
5:00 PM	30	45	48	123
6:00 PM	17	62	43	122
7:00 PM	15	67	54	136
8:00 PM	12	52	45	109
9:00 PM	8	18	10	36
SUPPLY	69	242	84	395

South Zone				
Utilization				
Time	Red - 69	Orange - 242	Green - 84	Average
7:00 AM	4%	2%	4%	3%
8:00 AM	12%	9%	12%	11%
9:00 AM	38%	37%	51%	42%
10:00 AM	46%	86%	80%	71%
11:00 AM	57%	86%	85%	76%
12:00 PM	68%	83%	89%	80%
1:00 PM	77%	83%	92%	84%
2:00 PM	39%	64%	75%	60%
3:00 PM	67%	43%	70%	60%
4:00 PM	59%	29%	69%	53%
5:00 PM	43%	19%	57%	40%
6:00 PM	25%	26%	51%	34%
7:00 PM	22%	28%	64%	38%
8:00 PM	17%	21%	54%	31%
9:00 PM	12%	7%	12%	10%
AVG. OCCUPANCY	39%	42%	58%	46%

Upper Lot		
Time	Count - 1167	Utilization
7:00 AM	39	3%
8:00 AM	181	16%
9:00 AM	614	53%
10:00 AM	1078	92%
11:00 AM	1071	92%
12:00 PM	1083	93%
1:00 PM	1058	91%
2:00 PM	813	70%
3:00 PM	693	59%
4:00 PM	476	41%
5:00 PM	361	31%
6:00 PM	429	37%
7:00 PM	537	46%
8:00 PM	445	38%
9:00 PM	184	16%
SUPPLY/AVG. OCCUPANCY	1167	52%

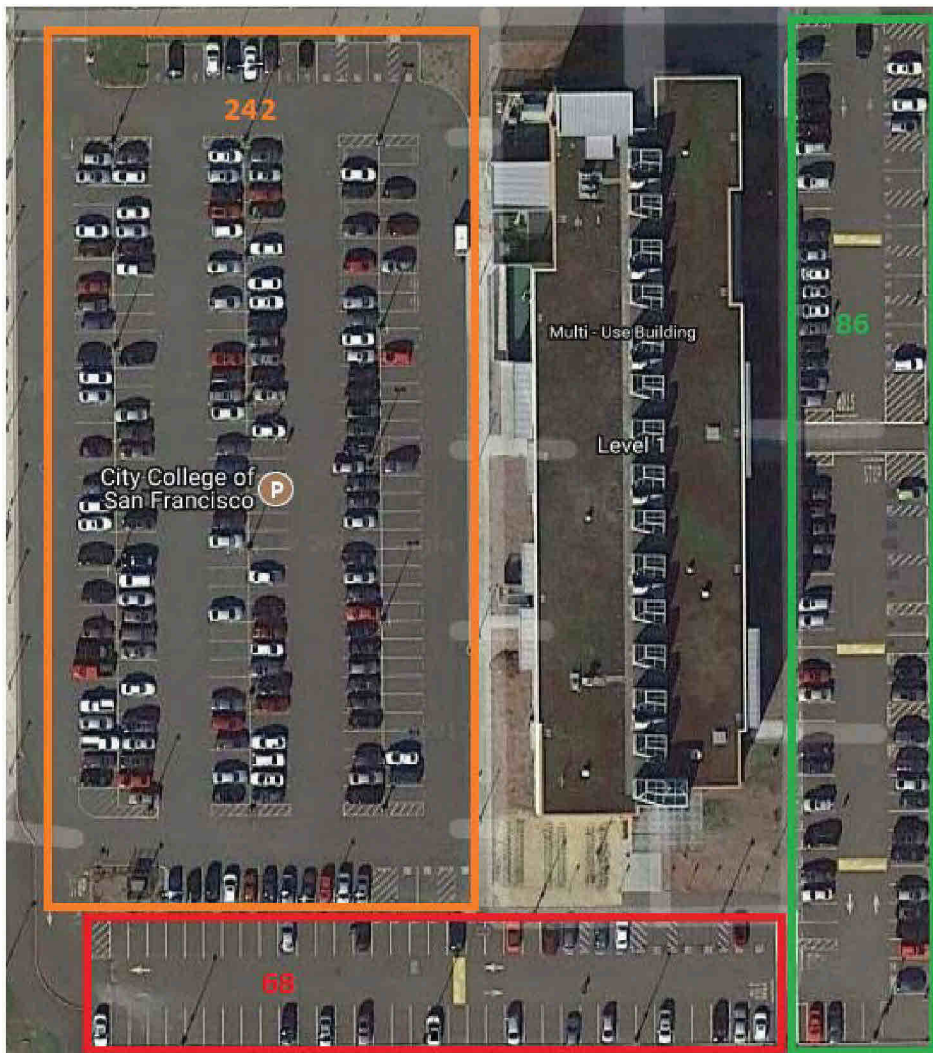
North Zone



Zone	Overhead	On Site
Red	177	176
Orange	91	135
Yellow	263	236
Green	198	198

* Aerial photo used for definition of sub areas for data collection. Aerial photos were not used for parking counts.

South Zone



Zone	Overhead	On Site
Red	68	69
Orange	242	242
Green	86	84

* Aerial photo used for definition of sub areas for data collection. Aerial photos were not used for parking counts.

Wednesday, January 31, 2018



2455 Bates Ave, Suite C
Concord, CA 94529
Ph: 925-587-5026

Date Counted: 1/31/2018
Location: Lower Lot

North Zone					
Count					
Time	Red - 122	Orange - 156	Yellow - 156	Green - 131	Total
7:00 AM	0	0	1	0	1
8:00 AM	2	0	1	0	3
9:00 AM	7	7	2	4	20
10:00 AM	57	26	64	124	271
11:00 AM	73	88	106	125	392
12:00 PM	45	97	106	105	353
1:00 PM	30	55	57	73	215
2:00 PM	18	31	33	49	131
3:00 PM	14	25	21	31	91
4:00 PM	7	13	11	18	49
5:00 PM	7	2	8	12	29
6:00 PM	0	0	2	2	4
7:00 PM	2	0	3	2	7
8:00 PM	1	0	2	2	5
9:00 PM	0	0	2	1	3
SUPPLY	122	156	156	131	565

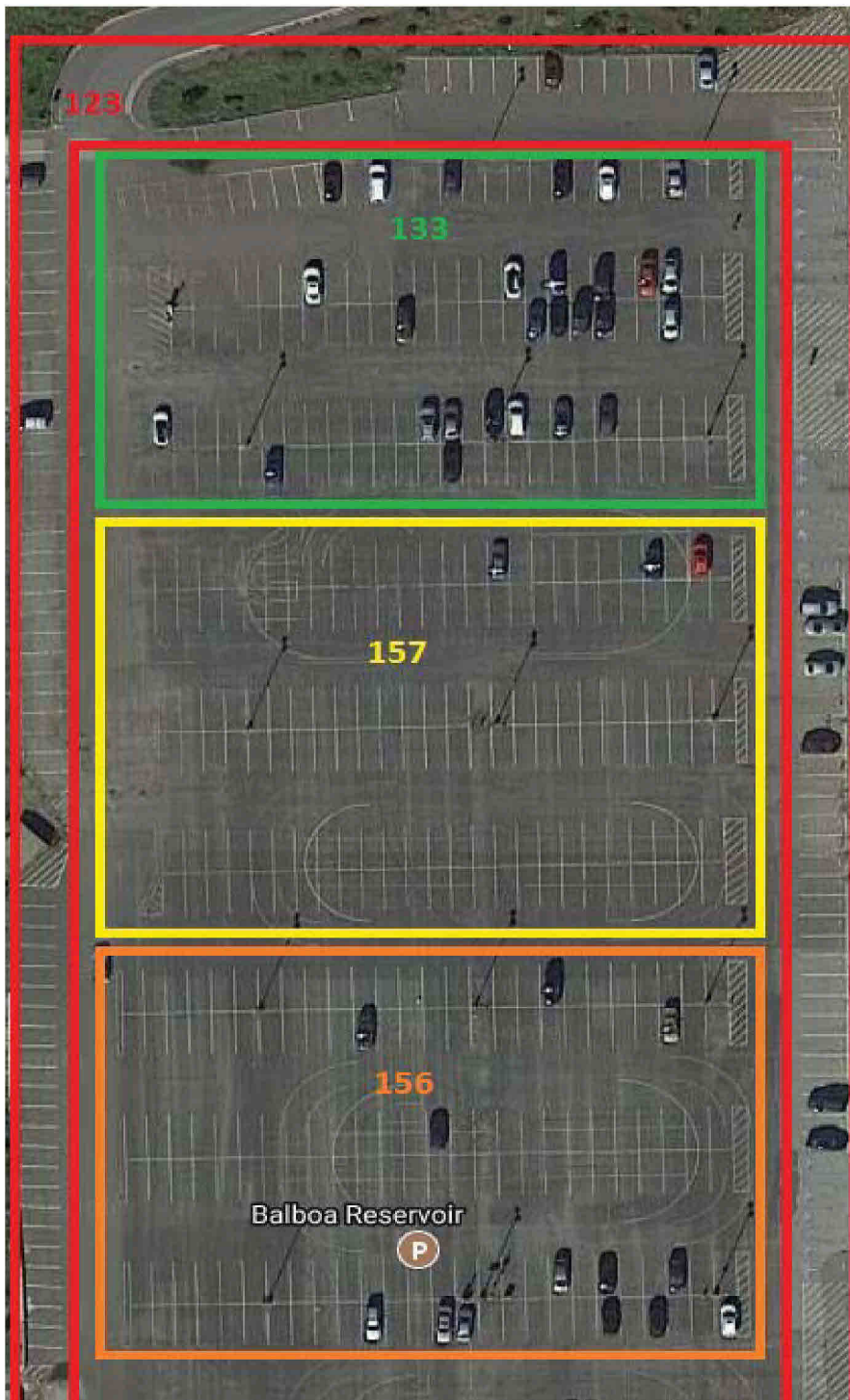
North Zone					
Utilization					
Time	Red - 122	Orange - 156	Yellow - 156	Green - 131	Average
7:00 AM	0%	0%	1%	0%	0%
8:00 AM	2%	0%	1%	0%	1%
9:00 AM	6%	4%	1%	3%	4%
10:00 AM	47%	17%	41%	95%	50%
11:00 AM	60%	56%	68%	95%	70%
12:00 PM	37%	62%	68%	80%	62%
1:00 PM	25%	35%	37%	56%	38%
2:00 PM	15%	20%	21%	37%	23%
3:00 PM	11%	16%	13%	24%	16%
4:00 PM	6%	8%	7%	14%	9%
5:00 PM	6%	1%	5%	9%	5%
6:00 PM	0%	0%	1%	2%	1%
7:00 PM	2%	0%	2%	2%	1%
8:00 PM	1%	0%	1%	2%	1%
9:00 PM	0%	0%	1%	1%	1%
AVG. OCCUPANCY	14%	15%	18%	28%	19%

South Zone				
Count				
Time	Red - 89	Orange - 197	Green - 156	Total
7:00 AM	0	0	0	0
8:00 AM	1	0	0	1
9:00 AM	35	19	65	119
10:00 AM	39	30	67	136
11:00 AM	42	36	63	141
12:00 PM	38	35	57	130
1:00 PM	25	27	30	82
2:00 PM	21	16	18	55
3:00 PM	17	14	13	44
4:00 PM	9	12	6	27
5:00 PM	8	9	9	26
6:00 PM	2	5	6	13
7:00 PM	2	1	2	5
8:00 PM	1	0	2	3
9:00 PM	0	0	1	1
SUPPLY	89	197	156	442

South Zone				
Utilization				
Time	Red - 89	Orange - 197	Green - 156	Average
7:00 AM	0%	0%	0%	0%
8:00 AM	1%	0%	0%	0%
9:00 AM	39%	10%	42%	30%
10:00 AM	44%	15%	43%	34%
11:00 AM	47%	18%	40%	35%
12:00 PM	43%	18%	37%	32%
1:00 PM	28%	14%	19%	20%
2:00 PM	24%	8%	12%	14%
3:00 PM	19%	7%	8%	12%
4:00 PM	10%	6%	4%	7%
5:00 PM	9%	5%	6%	6%
6:00 PM	2%	3%	4%	3%
7:00 PM	2%	1%	1%	1%
8:00 PM	1%	0%	1%	1%
9:00 PM	0%	0%	1%	0%
AVG. OCCUPANCY	18%	7%	14%	13%

Lower Lot		
Time	Count - 1007	Utilization
7:00 AM	1	0%
8:00 AM	4	0%
9:00 AM	139	14%
10:00 AM	407	40%
11:00 AM	533	53%
12:00 PM	483	48%
1:00 PM	297	29%
2:00 PM	186	18%
3:00 PM	135	13%
4:00 PM	76	8%
5:00 PM	55	5%
6:00 PM	17	2%
7:00 PM	12	1%
8:00 PM	8	1%
9:00 PM	4	0%
SUPPLY/AVG. OCCUPANCY	1007	16%

North Zone



Zone	Overhead	On Site
Red	123	122
Orange	156	156
Yellow	157	156
Green	133	131

* Aerial photo used for definition of sub areas for data collection. Aerial photos were not used for parking counts.

South Zone



Zone	Overhead	On Site
Red	85	89
Orange	177	197
Green	156	156

* Aerial photo used for definition of sub areas for data collection.
Aerial photos were not used for parking counts.



Date Counted: 1/31/2018
Location: Upper Lot

2455 Bates Ave, Suite C
Concord, CA 94529
Ph: 925-587-5026

North Zone					
Count					
Time	Red - 176	Orange - 135	Yellow - 263	Green - 198	Total
7:00 AM	17	32	7	5	61
8:00 AM	47	95	46	59	247
9:00 AM	170	135	257	198	760
10:00 AM	176	134	263	197	770
11:00 AM	167	129	251	186	733
12:00 PM	167	129	252	198	746
1:00 PM	154	112	220	198	684
2:00 PM	133	121	170	198	622
3:00 PM	119	112	176	118	525
4:00 PM	101	84	99	87	371
5:00 PM	97	102	88	65	352
6:00 PM	102	124	130	113	469
7:00 PM	127	133	147	174	581
8:00 PM	108	99	140	152	499
9:00 PM	48	37	46	63	194
SUPPLY	176	135	263	198	772

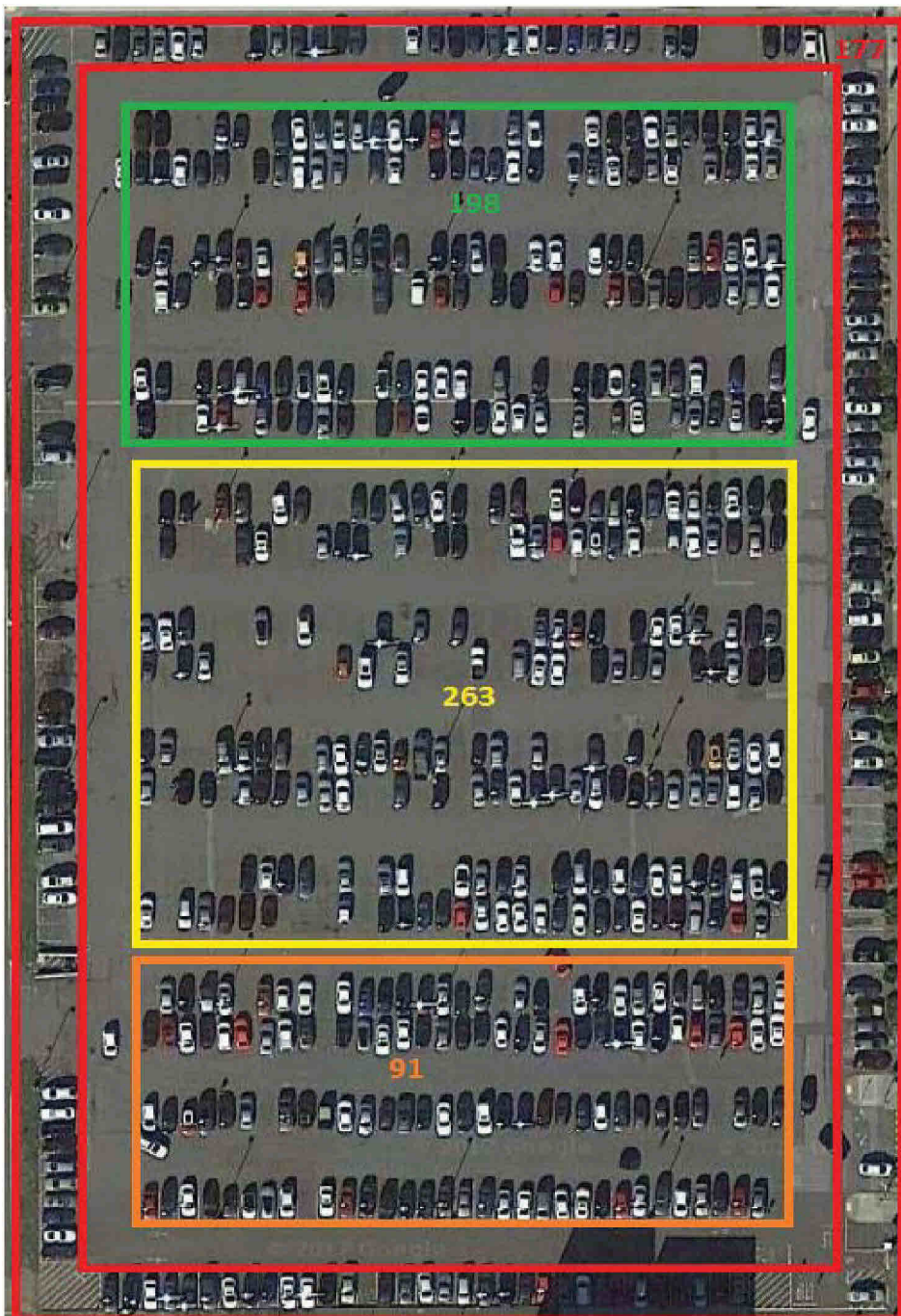
North Zone					
Utilization					
Time	Red - 176	Orange - 135	Yellow - 263	Green - 198	Average
7:00 AM	10%	24%	3%	3%	10%
8:00 AM	27%	70%	17%	30%	36%
9:00 AM	97%	100%	98%	100%	99%
10:00 AM	100%	99%	100%	99%	100%
11:00 AM	95%	96%	95%	94%	95%
12:00 PM	95%	96%	96%	100%	97%
1:00 PM	88%	83%	84%	100%	89%
2:00 PM	76%	90%	65%	100%	82%
3:00 PM	68%	83%	67%	60%	69%
4:00 PM	57%	62%	38%	44%	50%
5:00 PM	55%	76%	33%	33%	49%
6:00 PM	58%	92%	49%	57%	64%
7:00 PM	72%	99%	56%	88%	79%
8:00 PM	61%	73%	53%	77%	66%
9:00 PM	27%	27%	17%	32%	26%
AVG. OCCUPANCY	66%	78%	58%	68%	67%

South Zone				
Count				
Time	Red - 69	Orange - 242	Green - 84	Total
7:00 AM	2	13	3	18
8:00 AM	7	28	16	51
9:00 AM	14	137	47	198
10:00 AM	32	216	76	324
11:00 AM	44	210	76	330
12:00 PM	51	177	72	300
1:00 PM	46	162	71	279
2:00 PM	48	139	67	254
3:00 PM	44	95	62	201
4:00 PM	38	93	53	184
5:00 PM	29	57	44	130
6:00 PM	34	68	50	152
7:00 PM	31	63	70	164
8:00 PM	15	45	53	113
9:00 PM	6	25	26	57
SUPPLY	69	242	84	395

South Zone				
Utilization				
Time	Red - 69	Orange - 242	Green - 84	Average
7:00 AM	3%	5%	4%	4%
8:00 AM	10%	12%	19%	14%
9:00 AM	20%	57%	56%	44%
10:00 AM	46%	89%	90%	75%
11:00 AM	64%	87%	90%	80%
12:00 PM	74%	73%	86%	78%
1:00 PM	67%	67%	85%	73%
2:00 PM	70%	57%	80%	69%
3:00 PM	64%	39%	74%	59%
4:00 PM	55%	38%	63%	52%
5:00 PM	42%	24%	52%	39%
6:00 PM	49%	28%	60%	46%
7:00 PM	45%	26%	83%	51%
8:00 PM	22%	19%	63%	34%
9:00 PM	9%	10%	31%	17%
AVG. OCCUPANCY	43%	42%	62%	49%

Upper Lot		
Time	Count - 1167	Utilization
7:00 AM	79	7%
8:00 AM	298	26%
9:00 AM	958	82%
10:00 AM	1094	94%
11:00 AM	1063	91%
12:00 PM	1046	90%
1:00 PM	963	83%
2:00 PM	876	75%
3:00 PM	726	62%
4:00 PM	555	48%
5:00 PM	482	41%
6:00 PM	621	53%
7:00 PM	745	64%
8:00 PM	612	52%
9:00 PM	251	22%
SUPPLY/AVG OCCUPANCY	1167	59%

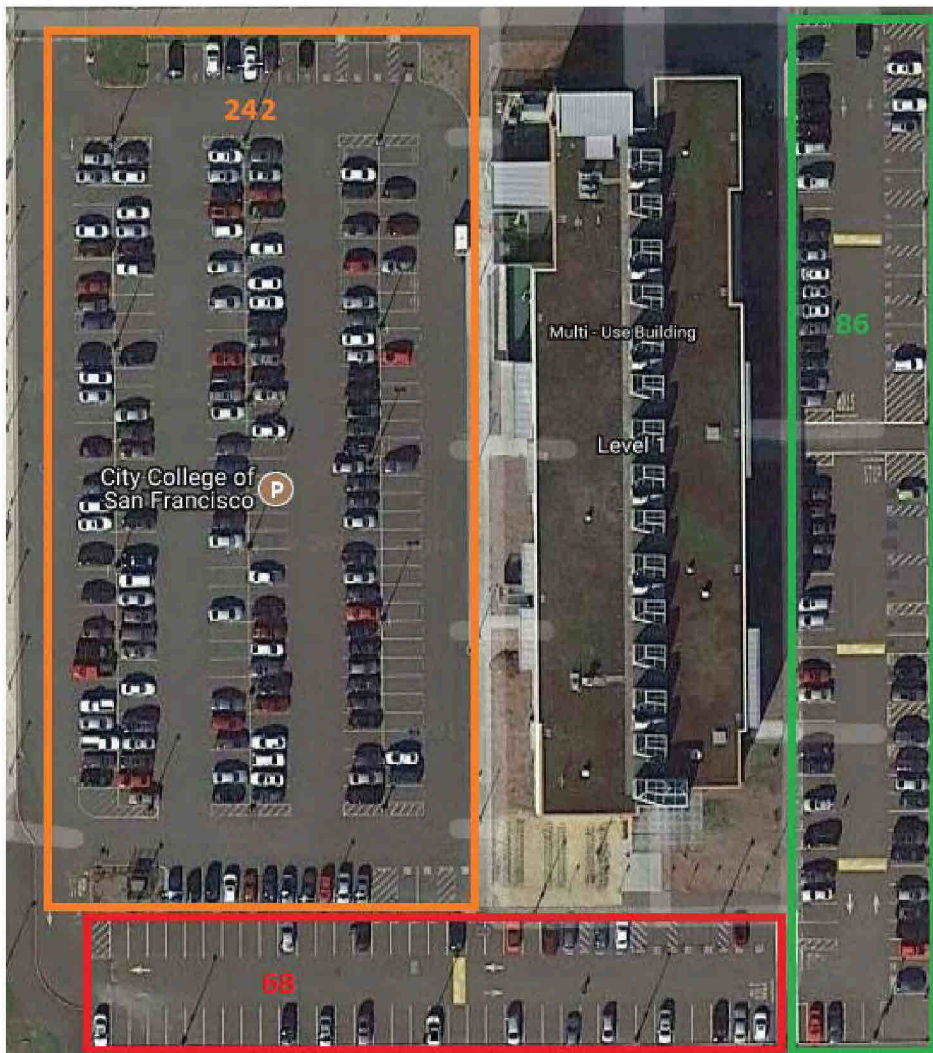
North Zone



Zone	Overhead	On Site
Red	177	176
Orange	91	135
Yellow	263	236
Green	198	198

* Aerial photo used for definition of sub areas for data collection. Aerial photos were not used for parking counts.

South Zone



Zone	Overhead	On Site
Red	68	69
Orange	242	242
Green	86	84

* Aerial photo used for definition of sub areas for data collection. Aerial photos were not used for parking counts.

Wednesday, April 18, 2018



2455 Bates Ave, Suite C
Concord, CA 94529
Ph: 925-587-5026

Date Counted: 4/18/2018
Location: Lower Lot

North Zone					
Count					
Time	Red - 122	Orange - 156	Yellow - 156	Green - 131	Total
7:00 AM	1	1	0	0	2
8:00 AM	2	1	0	0	3
9:00 AM	2	3	1	0	6
10:00 AM	19	29	5	39	92
11:00 AM	30	47	21	80	178
12:00 PM	25	30	18	53	126
1:00 PM	19	21	60	45	145
2:00 PM	11	17	8	20	56
3:00 PM	8	13	5	18	44
4:00 PM	1	7	6	8	22
5:00 PM	1	5	2	1	9
6:00 PM	1	4	2	1	8
7:00 PM	1	2	1	2	6
8:00 PM	1	1	1	0	3
9:00 PM	1	1	1	0	3
SUPPLY	122	156	156	131	565

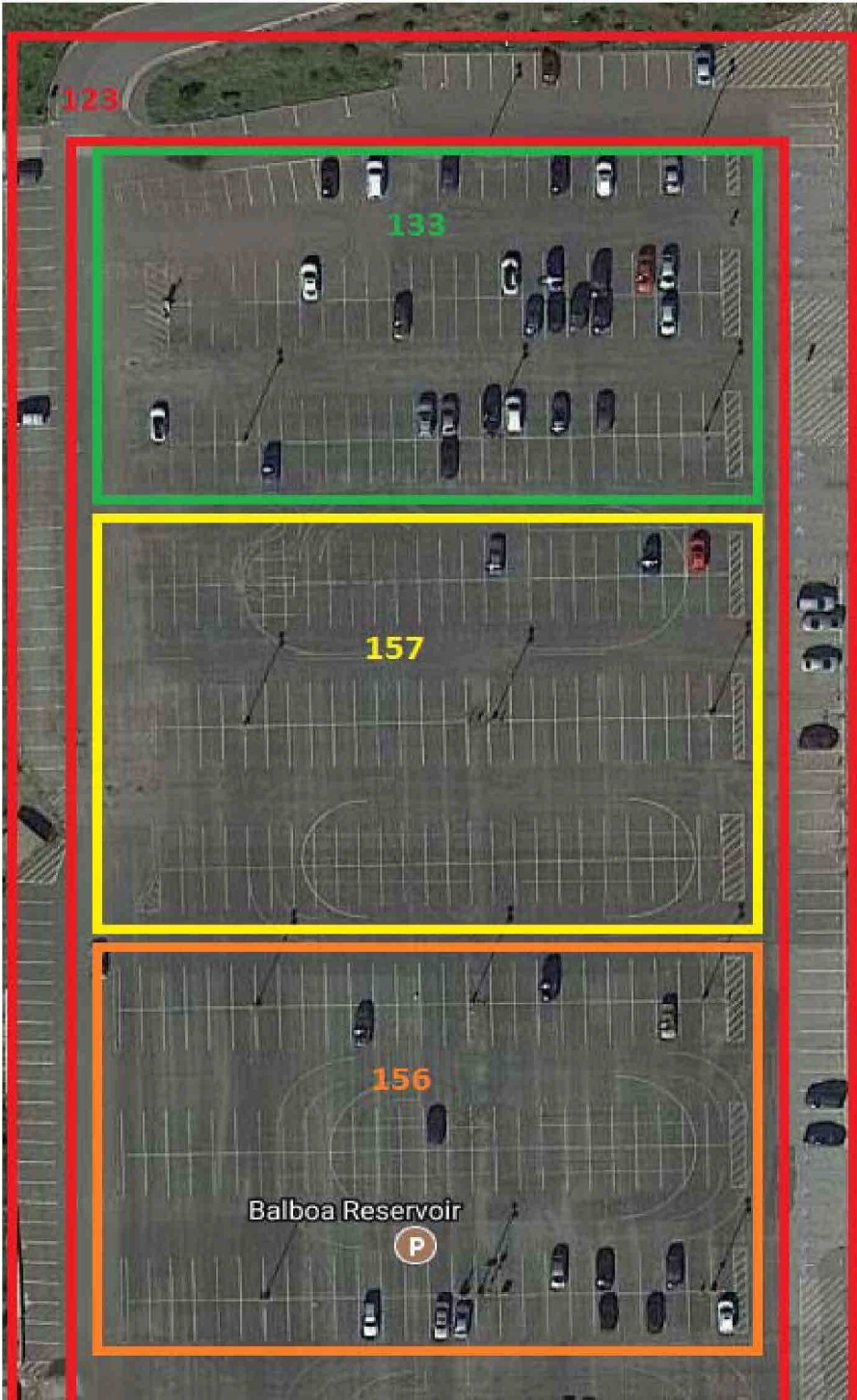
North Zone					
Utilization					
Time	Red - 122	Orange - 156	Yellow - 156	Green - 131	Average
7:00 AM	1%	1%	0%	0%	0%
8:00 AM	2%	1%	0%	0%	1%
9:00 AM	2%	2%	1%	0%	1%
10:00 AM	16%	19%	3%	30%	17%
11:00 AM	25%	30%	13%	61%	32%
12:00 PM	20%	19%	12%	40%	23%
1:00 PM	16%	13%	38%	34%	25%
2:00 PM	9%	11%	5%	15%	10%
3:00 PM	7%	8%	3%	14%	8%
4:00 PM	1%	4%	4%	6%	4%
5:00 PM	1%	3%	1%	1%	2%
6:00 PM	1%	3%	1%	1%	1%
7:00 PM	1%	1%	1%	2%	1%
8:00 PM	1%	1%	1%	0%	1%
9:00 PM	1%	1%	1%	0%	1%
AVG. OCCUPANCY	7%	8%	6%	14%	8%

South Zone				
Count				
Time	Red - 89	Orange - 197	Green - 156	Total
7:00 AM	1	0	0	1
8:00 AM	1	0	0	1
9:00 AM	3	0	0	3
10:00 AM	21	6	7	34
11:00 AM	26	18	16	60
12:00 PM	30	10	15	55
1:00 PM	22	8	12	42
2:00 PM	16	7	6	29
3:00 PM	12	6	5	23
4:00 PM	12	4	1	17
5:00 PM	7	3	3	13
6:00 PM	5	3	1	9
7:00 PM	2	2	0	4
8:00 PM	1	1	0	2
9:00 PM	1	1	0	2
SUPPLY	69	197	156	422

South Zone				
Utilization				
Time	Red - 89	Orange - 197	Green - 156	Average
7:00 AM	1%	0%	0%	0%
8:00 AM	1%	0%	0%	0%
9:00 AM	3%	0%	0%	1%
10:00 AM	24%	3%	4%	10%
11:00 AM	29%	9%	10%	16%
12:00 PM	34%	5%	10%	16%
1:00 PM	25%	4%	8%	12%
2:00 PM	18%	4%	4%	8%
3:00 PM	13%	3%	3%	7%
4:00 PM	13%	2%	1%	5%
5:00 PM	8%	2%	2%	4%
6:00 PM	6%	2%	1%	3%
7:00 PM	2%	1%	0%	1%
8:00 PM	1%	1%	0%	1%
9:00 PM	1%	1%	0%	1%
AVG. OCCUPANCY	12%	2%	3%	6%

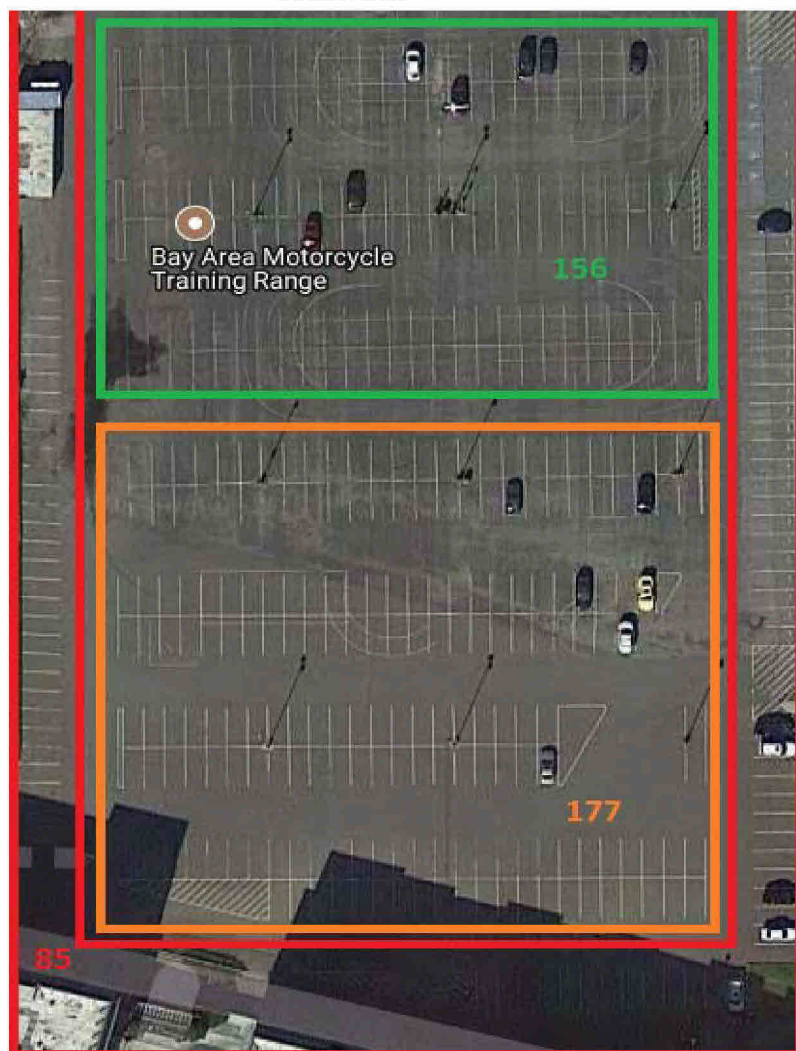
Lower Lot		
Time	Count - 1007	Utilization
7:00 AM	3	0%
8:00 AM	4	0%
9:00 AM	9	1%
10:00 AM	126	13%
11:00 AM	238	24%
12:00 PM	181	18%
1:00 PM	187	19%
2:00 PM	85	8%
3:00 PM	67	7%
4:00 PM	39	4%
5:00 PM	22	2%
6:00 PM	17	2%
7:00 PM	10	1%
8:00 PM	5	0%
9:00 PM	5	0%
SUPPLY/AVG. OCCUPANCY	1007	7%

North Zone



Zone	Overhead	On Site
Red	123	122
Orange	156	156
Yellow	157	156
Green	133	131

South Zone



Zone	Overhead	On Site
Red	85	89
Orange	177	197
Green	156	156



Date Counted: 4/18/2018
Location: Upper Lot

2455 Bates Ave, Suite C
Concord, CA 94529
Ph: 925-587-5026

	North Zone				Total
	Count				
	Red - 176	Orange - 135	Yellow - 263	Green - 198	
Time					
7:00 AM	8	17	2	3	30
8:00 AM	50	74	29	42	195
9:00 AM	163	74	223	42	502
10:00 AM	175	74	223	42	514
11:00 AM	170	132	247	190	739
12:00 PM	164	128	214	198	704
1:00 PM	167	134	196	159	656
2:00 PM	109	115	163	145	532
3:00 PM	121	97	138	92	448
4:00 PM	108	91	88	74	361
5:00 PM	88	95	72	62	317
6:00 PM	88	100	74	97	359
7:00 PM	116	115	86	129	446
8:00 PM	107	104	77	133	421
9:00 PM	41	28	12	32	113
SUPPLY	176	139	263	198	776

	South Zone			
	Count			
Time	Red - 69	Orange - 242	Green - 84	Total
7:00 AM	6	14	6	26
8:00 AM	15	35	20	70
9:00 AM	25	128	51	204
10:00 AM	41	217	75	333
11:00 AM	55	210	74	339
12:00 PM	61	171	73	305
1:00 PM	58	158	67	283
2:00 PM	61	131	68	260
3:00 PM	61	99	25	185
4:00 PM	46	81	48	175
5:00 PM	32	62	38	132
6:00 PM	30	59	41	130
7:00 PM	15	60	42	117
8:00 PM	10	47	32	89
9:00 PM	7	15	6	28
SUPPLY	69	242	84	395

Time	North Zone				Average
	Utilization				
	Red - 176	Orange - 135	Yellow - 263	Green - 198	
7:00 AM	5%	13%	1%	2%	5%
8:00 AM	28%	55%	11%	21%	29%
9:00 AM	93%	55%	85%	21%	63%
10:00 AM	99%	55%	85%	21%	65%
11:00 AM	97%	98%	94%	96%	96%
12:00 PM	93%	95%	81%	100%	92%
1:00 PM	95%	99%	75%	80%	87%
2:00 PM	62%	85%	62%	73%	71%
3:00 PM	69%	72%	52%	46%	60%
4:00 PM	61%	67%	33%	37%	50%
5:00 PM	50%	70%	27%	31%	45%
6:00 PM	50%	74%	28%	49%	50%
7:00 PM	66%	85%	33%	65%	62%
8:00 PM	61%	77%	29%	67%	59%
9:00 PM	23%	21%	5%	16%	16%
AVG. OCCUPANCY	63%	68%	47%	48%	57%

	South Zone			
	Utilization			
Time	Red - 69	Orange - 242	Green - 84	Average
7:00 AM	9%	6%	7%	7%
8:00 AM	22%	14%	24%	20%
9:00 AM	36%	53%	61%	50%
10:00 AM	59%	90%	89%	79%
11:00 AM	80%	87%	88%	85%
12:00 PM	88%	71%	87%	82%
1:00 PM	84%	65%	80%	76%
2:00 PM	88%	54%	81%	74%
3:00 PM	88%	41%	30%	53%
4:00 PM	67%	33%	57%	52%
5:00 PM	46%	26%	45%	39%
6:00 PM	43%	24%	49%	39%
7:00 PM	22%	25%	50%	32%
8:00 PM	14%	19%	38%	24%
9:00 PM	10%	6%	7%	8%
AVG. OCCUPANCY	51%	41%	53%	48%

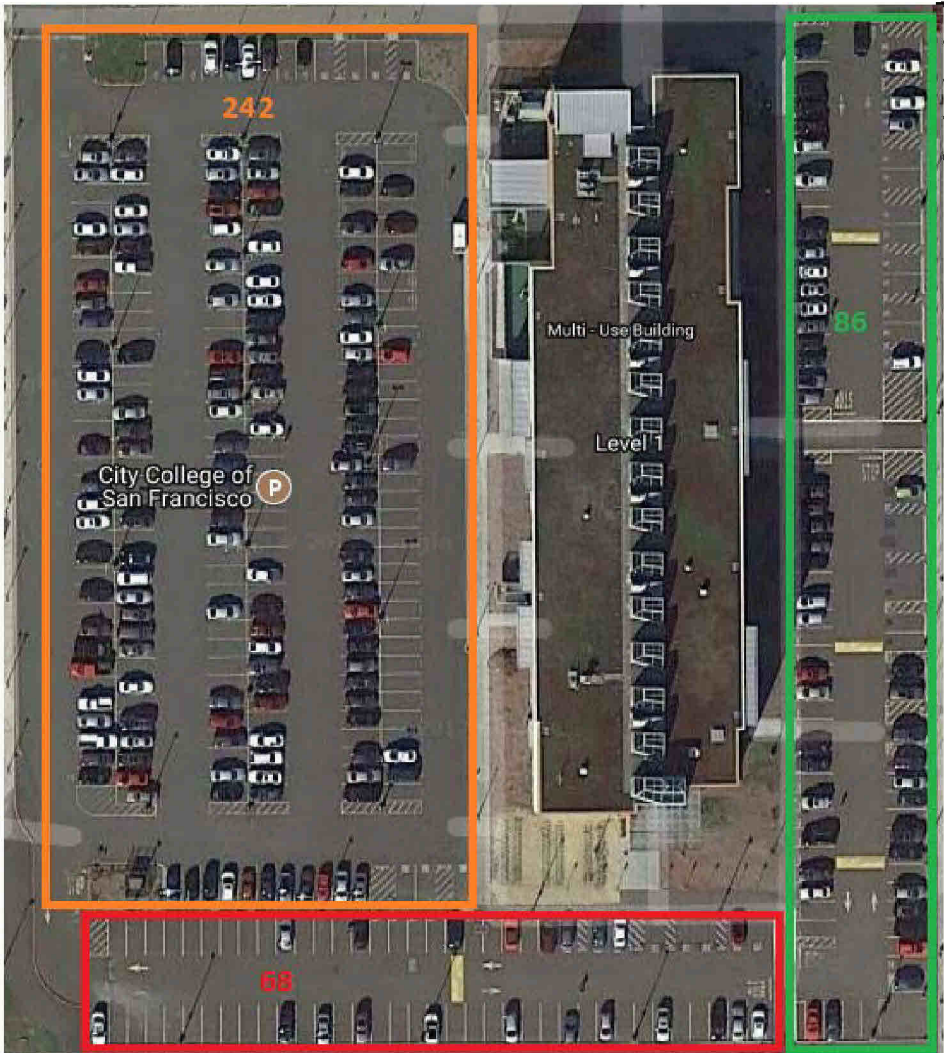
Time	Upper Lot	
	Count - 1167	Utilization
7:00 AM	56	5%
8:00 AM	265	23%
9:00 AM	706	60%
10:00 AM	847	73%
11:00 AM	1078	92%
12:00 PM	1009	86%
1:00 PM	939	80%
2:00 PM	792	68%
3:00 PM	633	54%
4:00 PM	536	46%
5:00 PM	449	38%
6:00 PM	489	42%
7:00 PM	563	48%
8:00 PM	510	44%
9:00 PM	141	12%
SUPPLY/AVG. OCCUPANCY	1167	51%

North Zone



Zone	Overhead	On Site
Red	177	176
Orange	91	135
Yellow	263	236
Green	198	198

South Zone



Zone	Overhead	On Site
Red	68	69
Orange	242	242
Green	86	84

